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June 29, 2001
B-09075-0138-0909
REPA2-0909-012

Ms. Bess Gordon
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

Subject: EPA Contract No. 68-W-99-009, Work Assignment R09909, RCRA Facility Assessments (RFAs) and RFA-Equivalent Assessments

Dear Ms. Gordon,

In response to Work Assignment R09909, under EPA Contract No. 68-W-99-009, attached please find a copy of the Preliminary Review Report for Westates Carbon-Arizona, Inc, located in Parker, Arizona. This report details the results of the file review for this site, conducted at EPA Region 9 (both RCRA and Superfund records centers) and at the Arizona Department of Environmental Quality (ADEQ). In addition, this report identifies information needs for the site which will be addressed during the Visual Site Inspection, which is currently scheduled for July 12, 2001. After completion of the Visual Site Inspection, a RCRA Facility Assessment (RFA) report will be prepared and submitted. If you have any questions regarding this report, please contact me at (415) 281-4903. An electronic copy of this document will be provided to the EPA WAM.

Sincerely,

K Hastie

Katharine Hastie
BA&H Work Assignment Manager

BOOZ ALLEN & HAMILTON, INC

Enclosures

Cc: Erin Foley, EPA Work Assignment Manager
Dean Walter, EPA Contracting Officer (cover letter only)
BA&H Central Files

PRELIMINARY REVIEW REPORT

Westates Carbon-Arizona, Inc.
2523 Mutahar Street
Parker, Arizona
AZD982441263

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 9
75 Hawthorne
San Francisco, CA

Work Assignment No.	R009909
EPA Region	9
Site No.	AZD982441263
Document Control No.	REPA2-0909-012
Contract No.	68-W-99-009
Prepared by	Booz Allen & Hamilton Inc.
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1.0 EXECUTIVE SUMMARY

The owner or operator of a facility seeking a Resource Conservation and Recovery Act (RCRA) permit must institute corrective action as necessary to protect human health and the environment. The first step in the RCRA corrective action process is the RCRA Facility Assessment (RFA). The RFA is conducted to assess if a release of hazardous waste or constituents has occurred from any solid waste management unit (SWMU) at the facility. The main elements of an RFA are: (1) to identify and gather information to characterize all SWMUs and other areas of concern at the facility; (2) to evaluate SWMUs for all releases or potential releases to groundwater; to surface water; to the atmosphere; and to the surface and subsurface soils; (3) to make preliminary determinations regarding releases of concern; and (4) to recommend appropriate further actions and interim measures at the facility, if needed.

An RFA is currently being conducted for Westates Carbon-Arizona, Inc. (Westates Carbon) located in Parker, Arizona. A Preliminary Review (PR) of the Environmental Protection Agency (EPA) Region 9 and the Arizona Department of Environmental Quality (ADEQ) file material on the Westates Carbon facility was conducted. This PR report outlines the findings of the PR and identifies additional information that is needed from the facility to make a determination on whether a release has occurred or could occur in the future. The information needs are presented in Appendix A.

Following the completion of the PR, a Visual Site Inspection (VSI) will be conducted at the facility to address information gaps identified in the PR. During the VSI, all SWMUs identified in this report will be inspected, and interviews with facility personnel will be conducted to gather additional information about the facility.

Westates Carbon is currently authorized to operate under RCRA interim status. A Part B RCRA permit application was submitted to EPA in November 1995. A final RCRA permit has not been issued. Westates Carbon plans to submit a revised permit application to EPA in mid-2001. The facility receives solely spent carbon from customers for treatment. The spent carbon that is reactivated via thermal treatment is contaminated with organic compounds. Some of the spent carbon is RCRA hazardous waste.

The following twenty-two SWMUs at the facility were identified:

SWMU 1 - Inactive Spent Carbon Reactivation Furnace, RF-1
SWMU 2 - Active Spent Carbon Reactivation Furnace, RF-2
SWMU 3 - Air Pollution Control Equipment: Venturi Scrubbers; Afterburner; Packed Bed Scrubber; and Wet Electrostatic Precipitator

SWMU 4 -	Unloading Feed Hopper H-1
SWMU 5 -	Unloading Feed Hopper H-2
SWMU 6 -	Dust Collection System
SWMU 7 -	Slurry Transfer System
SWMU 8 -	Container Storage Area
SWMU 9 -	Transfer Area Containment Pad with Secondary Containment Pit and Sump
SWMU 10 -	Slurry Storage Tank T-1
SWMU 11 -	Slurry Storage Tank T-2
SWMU 12 -	Slurry Storage Tank T-5
SWMU 13 -	Slurry Storage Tank T-6
SWMU 14 -	RF-1 Feed Tank T-8
SWMU 15-	RF-2 Feed Tank T-18
SWMU 16 -	Water Recycled Storage Tank T-9
SWMU 17 -	Rainwater Collection Tank T-12
SWMU 18 -	Scrubber Water Storage Tank T-11
SWMU 19 -	Scrubber Water Equalization Tank T-17
SWMU 20 -	Slurry Transfer Inclined Plate Settler Tank V-1
SWMU 21 -	Scrubber Recycled Settler Tank V-2
SWMU 22 -	Filter Press V-3

In addition to these twenty-two SWMUs, two areas of concern (AOC) were identified. AOC 1 is the area surrounding the dump hoppers and the spent carbon conveyor belts, extending downwind to the maximum distance plausible for contaminated carbon dust deposition. AOC 2 is the area surrounding the cooling tower and lift station. According to available documentation, all SWMUs are active units except RF-1 (SWMU 1) and the RF-1 Feed Tank T-8 (SWMU 14). SWMU 1 and SWMU 14 were shutdown and disabled in June 1996. Westates does not plan to restart RF-1.

2.0 INTRODUCTION

2.1 Purpose of the RCRA Facility Assessment

The 1984 Hazardous and Solid Waste Amendments (HSWA) to RCRA provide authority in the RCRA program to assist the EPA in implementing corrective action at RCRA facilities. Corrective action is the process through which areas of a facility which could have received hazardous waste or constituents are evaluated and, if necessary, are cleaned up. RCRA facilities include all facilities which currently treat, store, or dispose of RCRA regulated hazardous waste or constituents (or have done so in the past). HSWA refocused the corrective action program from detecting and correcting future releases from regulated units, to cleaning up problems resulting from current and past waste management practices at RCRA facilities. The HSWA corrective action program addresses releases to all media including: groundwater, surface water, the atmosphere, surface soils and subsurface soils, both on and off-site; and sources across the entire facility.

The first step in the RCRA corrective action process is the RFA, which consists of an appropriate combination of the following steps: a facility file search (PR of records); a VSI; a Sampling Visit (SV); and completion of a Final RFA Report. RFAs compile existing information on environmental conditions at a given facility, including information on actual or potential releases. The RFA focuses on obtaining information on the potential that a release has occurred from any SWMU or any other area where wastes have been managed at the facility.

A SWMU is defined as any discernable waste management unit at a RCRA facility from which hazardous constituents might migrate, irrespective of whether the unit was intended for the management of solid and/or hazardous waste. The definition includes containers; tanks; surface impoundments; waste piles; land treatment units; landfills; incinerators; underground injection wells, and other physical, chemical, and biological treatment units such as recycling units, waste water treatment units; and areas contaminated by "routine, systematic, and deliberate discharges" of hazardous waste or hazardous constituents from process areas. Routine and systematic releases constitute, in effect, management of wastes; the area at which this activity has taken place can thus reasonably be considered a SWMU. In addition to identifying releases from SWMUs, the RFA also investigates evidence of spills and/or other releases to any area resulting from waste management activities which may not fit the definition of a SWMU release. The term "deliberate" is included in the SWMU definition to exclude from implementation of corrective action, one-time accidental spills which cannot be linked to a discernible SWMU. An example of this type of release would be an accidental spill from a truck at a RCRA facility.

Under Work Assignment No. R09909, EPA Region 9 has requested that Booz·Allen & Hamilton, Inc (Booz·Allen) conduct an RFA of Westates Carbon located in Parker, Arizona. The first step in preparing the RFA was a file search at the EPA Region 9 offices in San Francisco, California and at the ADEQ office in Phoenix, Arizona. Brief interviews with ADEQ staff familiar with Westates Carbon were conducted during the file search. No new file material was found at the ADEQ. Review of the EPA file materials resulted in this report and the information needs list identified in Appendix A.

2.2 General Procedures Used for Gathering Information

Each of the steps to the RFA requires the collection and analysis of data to support release determinations. During the preliminary review process, existing information is evaluated, such as inspection reports and permit applications, and interviews are conducted with Federal and State personnel who are familiar with the facility. Additional information is gathered during the VSI, including visual observation of the site, interviews with the owner/operator, and review of requested file material.

2.3 Facility Information

The EPA Identification (ID) number for Westates Carbon is AZD982441263. The Standard Industrial Codes (SIC codes) for the facility are 4953 (refuse systems) and 9999 (otherwise unclassifiable establishments). Westates Carbon initially submitted to EPA a notification of regulated waste activity on April 30, 1991, and received an EPA ID number on May 6, 1991. On August 21, 1991, Westates Carbon submitted to EPA part A of their hazardous waste permit application. Subsequent revised part A(s) were submitted to EPA on September 4, 1992; November 30, 1992; and January 4, 1994. According to the RCRA part B permit application (November 1995), the facility consists of the following hazardous waste management areas: (1) container and bulk receiving and unloading area; (2) container storage area; (3) four spent carbon slurry storage tanks; (4) the carbon reactivation furnaces, RF-1 and RF-2; and (5) their associated air pollution control equipment. RF-1 was shutdown and disabled in June 1996. RF-2 was started up in July 1996. Westates Carbon plans to submit a revised RCRA Part B permit application to EPA Region 9 in mid-2001 for the thermal treatment unit, RF-2, and for the storage of hazardous waste.

3.0 SITE DESCRIPTION

3.1 Site Location

The Westates Carbon facility is located within the Colorado River Indian Tribe (CRIT) Industrial Park, an area zoned for commercial and industrial uses.

The facility is adjacent to US 95 with access to I-8, I-10, and I-40. The site is one-half mile southeast of Parker, Arizona, in the county of La Paz in Township 9 North, Range 19 West, and Section 7, at the Gila and Salt River Base Line and Meridian. The latitude of the facility is 34° 07" 55", and the longitude is 114° 16" 19.7". The figures in Appendix C present the location of the site. The facility is located on approximately 10 acres of land. Three gates provide for vehicle site access to, and exit from, the facility. The gates to the facility are chain link and topped with barbed wire.

The street address for the facility is:

2523 Mutahar Street
Parker, Arizona 85344

3.2 Owner/Operator History

In May of 1989, Westates approached the CRIT with a request to build a carbon reactivation facility in the CRIT Industrial Park in Parker, Arizona. On July 14, 1990, the CRIT approved the request for the land lease and facility construction on tribal lands. The agreement between Westates and the CRIT was then submitted to the U.S. Department of Interior, Bureau of Indians Affairs for final approval. Final approval and a land lease agreement was signed effective April 1, 1991.

In February 1991, an Environmental Assessment (EA) to comply with the National Environmental Policy Act (NEPA) was performed by Westates Carbon. The EA was required since the carbon reactivation plant development project was proposed to be constructed and operated on Indian Trust Lands. The Superintendent of the Bureau of Indian Affairs determined that by implementation of the proposed action and environmental mitigation measures, as specified in the EA, the proposed Westates Carbon reactivation plant site would have no significant impact on the quality of the environment. The EA states that an Environmental Impact Statement was not required.

The facility began operation on August 23, 1992. Westates Carbon Arizona, Inc. is owned and operated by:

Westates Carbon Arizona, Inc.
2523 Mutahar Street
Parker, Arizona 85344

The address of the property owner is as follows:

Colorado River Indian Tribes
Rt-1, Box 23-B
Parker, AZ 85344

3.3 Processes and Waste Management

The following process and waste management descriptions are based on information and data provided to EPA in Westates Carbon's 1995 RCRA Part B permit application and Compliance Evaluation Inspection (CEI) Reports, as referenced at the end of this PR Report.

The Westates Carbon facility receives spent (used) activated carbon from its customers, who use activated carbon in equipment to adsorb organic compounds from liquid and vapor phase process, and waste streams. The spent carbon is received by truck in containers (either 55-gallon drums or roll-off bins), and in bulk-load tank trucks. It may be wet or dry upon arrival. Half of the waste received at the facility comes in containers. Some of the spent carbon is received as manifested hazardous waste materials. Received spent carbon is then thermally reactivated in one of two furnaces. Reactivated carbons are certified nonhazardous and shipped off site for reuse.

The reactivation processes are depicted in the Process Flow Diagram in Appendix E. The facility is divided into three main areas: 1) the receiving, unloading, and tank storage area; 2) the treatment area, and 3) the reactivated carbon storage, packaging, and shipping area. The general facility layout map is in Appendix D.

The hazardous waste or constituents and applicable hazardous waste codes acceptable for treatment at the facility, are presented in Appendix B (416 RCRA waste codes). Three types of spent carbon are received, managed, and thermally reactivated. The spent carbon may have adsorbed any of the hazardous constituents presented in Appendix B. The first type of carbon is known as water carbon because of its use in aqueous systems. The amount of hazardous constituents in the waste carbon is typically less than five percent by weight. The particle size used in wet carbon is generally smaller than the type used in gaseous phase applications. Therefore, wet and dry spent carbon are processed separately through the reactivation furnace. The second type of carbon is used in vapor phase applications. The second type of carbon may contain five percent to ten percent by weight of hazardous constituents. The third type of carbon may contain 20 percent to 30 percent by weight of the first type of hazardous constituents. The facility reactivates nonhazardous contaminated carbon during periods when hazardous waste spent carbon is not available.

Hazardous and nonhazardous waste in various forms of spent activated carbon are brought to the facility. Drivers of the trucks provide the appropriate manifests and Land Disposal Restriction (LDR) forms to an appropriate facility representative who checks this information against the waste profile sheet. Any discrepancies in manifests, LDRs, or waste profile information are addressed before the waste is received (i.e., physically accepted for treatment).

An on-site laboratory reviews the hazardous waste manifests and other information concerning the potential incoming spent carbon as to its suitability for management. If contaminants are such that they cannot be destructed at the operating conditions of the reactivation furnace, they are rejected.

For incoming drums, the square root of the number of drums in the shipment plus one is sampled. The sample is taken at a minimum depth of 6 inches below the top surface. Samples are analyzed at the onsite laboratory for pH and ignitability. Westates does not accept corrosive wastes. Spent carbon received in bulk loads either in 10,000-lb roll-off bins or 20,000-lb slurry trucks is also sampled. One sample is pulled from each roll-off bin, and three samples are taken from representative locations in slurry truck loads. These samples are tested for pH and ignitability.

Following receipt, inspection, and acceptance at the transfer area containment pad (SWMU 9), spent carbon received in bulk loads, such as in roll-offs, is typically transferred directly to one of the four slurry storage tanks (SWMUs 10 through 13) by feed hopper H-1 and a pipe conveyance system, the slurry and recycled water transfer system (SWMU 7). Spent carbon received in smaller containers, such as drums, is typically moved to the container storage area (SWMU 8) in the containers in which it was received, and subsequently transferred to one of the four slurry storage tanks via feed hopper H-2 (SWMU 5) and a pipe conveyance system (SWMU 7).

The containerized dry spent carbon requires transfer to the slurry storage tanks via a hopper where water is added because it cannot be pumped directly from the container to a tank. Water must be added as the carbon passes through the hopper to facilitate removal of the spent carbon from the hopper by an eductor/extractor. The spent carbon is transferred from the unloading feed hoppers (SWMUs 4 and 5) to one of the slurry storage tanks (SWMUs 10-13) as a water-carbon slurry. Recycled water is added to the spent carbon to flush it out of the trucks into the feed hoppers. Excess water falls through a screen and goes through a filter, making the water reusable, and the water is recycled via piping to SWMUs 16 and 17, the recycled water storage tanks T-9 and T-12. The trapped materials in the carbon filter are fed through the reactivation furnace. Water used in the spent carbon transport process is supplied from the slurry water supply system, which consists of two recycled water storage tanks, T-9 (SWMU 16) and T-12 (SWMU 17), and associated valves and piping (SWMU 7). The recycled water is pH adjusted for corrosion control.

From the slurry storage tanks, the water-carbon slurry is transferred via a piping system (SWMU 7) to RF-2 feed tank T-18 (SWMU 15). Prior to shutting down RF-1, the slurry was transferred to feed tank T-8 (SWMU 14).

The furnace feed system (SWMU 15) for the water-carbon slurry to the reactivation furnace consists of the feed tank T-18, a dewatering screw, and a weigh belt conveyor. Prior to introduction into the reactivation furnace, the water-carbon slurry is fed from the feed tank T-18 via a pipe system, to a dewatering screw at the top of RF-2 where the carbon is dewatered. The water from the dewatering screw is routed to one of two recycled water tanks, T-9 (SWMU 16) or T-12 (SWMU 17), where it is then recycled through the recycled water transport system (SWMU 7). The dewatered spent carbon is then fed into the top hearth of the reactivation furnace by a weigh belt conveyor.

The dewatered spent carbon is thermally reactivated in RF-2 (SWMU 2). Prior to being shutdown, RF-1 (SWMU 1) was operated as a four hearth reactivation furnace. RF-2 is a multiple hearth furnace consisting of five hearths. The spent carbon is introduced into the top hearth and flows downward through the remaining four hearths. Reactivated carbon exits the bottom hearth through a cooling screw.

Once the spent carbon is introduced into the reactivation furnace, it is heated to remove moisture, desorb contaminants, and reactivate the carbon. The spent carbon travels from the upper hearths to the lower hearths thereby exposing the carbon to high temperatures and heat, causing it to release contaminants to the air surrounding the carbon. This causes the hot air to pick up all the contaminants from the carbon, leaving the carbon clean to a point that it can be re-used.

The hot gases (contaminated air) generated in RF-2 during the reactivation process then enter the off-gas oxidizer or afterburner. This treatment unit ensures the completion of thermal combustion of any organic constituents that were not oxidized in the reactivation unit. If the afterburner unit ever malfunctions, safety shut-down devices will stop all processing activity to prevent the release of contaminants to the atmosphere.

From the afterburner, the hot gases are routed through a venturi scrubber for particulate matter removal. From the venturi scrubber, the gases are routed to a packed bed scrubber for acid gas control. From the packed bed scrubber, the gases are routed to a wet electrostatic precipitator. From the wet electrostatic precipitator, the gases are routed through the stack to the atmosphere.

The air pollution control equipment (SWMU 3) for the reactivation furnace requires a scrubbing medium for acid gas control. The scrubbing medium for the reactivation furnace is supplied via a closed loop recycled system. Periodically, a portion of the scrubber water in the system is discharged (blowdown) to a piping system and a lift station to the sewer and the Publically Owned Treatment Works (POTW). This discharge prevents excessive build-up of total dissolved solids in the scrubber water system. The scrubber water is pH-adjusted and cooled in a cooling tower prior to discharge to an industrial sewer pursuant to a discharge permit from the local POTW.

Scrubber water is supplied to the air pollution control equipment from the scrubber water tank T-17 (SWMU 19). From the air pollution control equipment, the scrubber water is returned to T-17. The pH of the scrubber water is controlled by the introduction of caustic via a scrubber metering pump, into the scrubber water line just prior to introduction into the venturi and packed bed scrubbers.

The air pollution equipment (SWMU 3) for RF-2 is equipped with a dual loop scrubber water system. Scrubber water for the venturi scrubber is supplied from a tank incorporated into the bottom section of the packed bed scrubber. A pump is used to route the scrubber water from a tank in the packed bed scrubber to the venturi scrubber and, periodically, to the POTW. Scrubber water for the packed bed scrubber is supplied from the scrubber water tank T-17 (SWMU 19). A pump is used to route the scrubber water from T-17 to the upper section of the packed bed scrubber.

Scrubber water blowdown from the former RF-1 air pollution control equipment was treated in the wastewater treatment unit T-11 (SWMU 18) or discharged directly to the POTW. Scrubber blowdown from the RF-2 air pollution control equipment is treated in the same wastewater treatment unit. The wastewater treatment unit consists of pH adjustment and effluent cooling.

Two venturi scrubbers, VS-1 for hazardous dust (SWMU 3), and VS-2 for nonhazardous dust, have been installed to collect the dust from the incoming carbon dump hoppers and conveyors, and for the product dust collection during screening and packaging of regenerated carbon. Hazardous dust is collected in a hood and central dust collection system prior to the reactivation furnace step and is returned to the furnace feed system for treatment by VS-1 (SWMU 3). Nonhazardous dust collected after the reactivation furnace step is packaged and sold to the copper smelting industry. The dust collection system is inspected for leaks or improper operation by facility personnel no less frequently than once each work shift.

All hazardous waste storage and treatment areas at the facility are surrounded by secondary containment systems. All rainwater that falls within these containment systems is collected and routed to one of the two recycled water tanks T-9 (SWMU 16) and T-12 (SWMU 17) where it is used as make-up water to the recycled water system.

Reactivated carbon is removed from the bottom of the reactivation furnace and transported to three product storage tanks at the reactivated carbon, storage, packaging, and shipping area of the facility. As needed, reactivated carbon is moved via an elevated conveyor to the product packaging building where it goes through screens to separate the reactivated carbon into different sizes, and is placed in an appropriate container (either a drum or a bag) for shipment to customers. All steps in this process are performed under a dust control system. The nonhazardous product dust is captured by a hood, then directed to VS-2 (SWMU 6).

A map of SWMUs, whose location could be identified through available file information, is provided in Appendix D. A more complete SWMU map will be provided in the Final RFA Report.

4.0 REGULATORY INVOLVEMENT

The following discussion is based on correspondence and documents cited in the references of this PR Report.

4.1 EPA and State Permit Status and Environmental Regulations

The Westates Carbon facility is subject to regulation by the EPA, the State of Arizona, and the Colorado River Indian Tribe.

Federal environmental laws that the facility must comply with include: the Federal Clean Water Act (CWA), the Federal Clean Air Act (CAA), the Resource Conservation and Recovery Act (RCRA), and the Emergency Planning and Community Right-to-Know-Act (EPCRA).

<u>Clean Water Act</u>
Wastewater discharges from the facility are subject to the Pretreatment Program (Section 307) requirements of the CWA. Westates Carbon obtained an "Industrial Wastewater Discharge Permit" prior to being allowed to discharge into the sewer system (Permit Number 1001-91). The permit is effective May 8, 1996, and expires May 8, 2001. Westates Carbon is permitted to discharge up to 150,000 gallons per day from the Westates Carbon facility to the Colorado River Sewage System Joint Venture Treatment Plant.

Based upon the application, questionnaire, and site inspection, Westates Carbon discharges wastewater from the following specific areas within their facility: 1) domestic wastewater; 2) scrubber blowdown from the furnace off-gas system; 3) blowdown of boiler feed water; 4) wastewater from cooling tower and cooling screw; 5) recycled water (contact motive water); 6) rain water falling within concrete containment area; and 7) facility washdown water. The discharge limitations for flow, pH, total dissolved solids, and temperature are monitored continuously. Flow is monitored at a specified flow meter location. The pH, total dissolved solids, and temperatures are monitored at the post cooling tower location. On a monthly basis, discharge limitations for total suspended solids and chemical oxygen demand are monitored by sampling a manhole. File material did not indicate any violations of the permit.

<u>Clean Air Act (CAA)</u>
Air emissions from the facility operations meet pollutant standards set by the CAA. These standards set emission limits for specific pollutants that may be emitted at Westates Carbon. Westates is classified as a minor source of air pollutants. The carbon reactivation unit currently operating at Westates is not directly subject to permitting requirements of Title V of the CAA. However, EPA Region 9 will consider the provisions in subpart EEE in reviewing Westates Carbons RCRA permit application.

<u>Resource Conservation and Recovery Act (RCRA)</u>
The State of Arizona has adopted, by reference, without substantial modification, those parts of RCRA applicable to the facility.

The facility is currently operating as an interim status facility. The regulated units include the thermal treatment units (the inactive R-1 (SWMU 1) and the active R-2 (SWMU 2) units), the container storage area (SWMU 8), and the slurry storage tanks (SWMUs 10-13). The facility has had interim status since August 21, 1991, by submission of a notification of hazardous waste activity and of a part A. The facility qualified for interim status because it had an existing hazardous waste facility. In a letter dated March 25, 1992, EPA confirmed that Westates Carbon had qualified for interim status. In the original Part A filed in August 1991, Westates stated that it was seeking a permit for two thermal treatment units for carbon regeneration with a combined product design capacity of 1,200 lbs per hour. According to the letter, construction of the first unit was completed in the fall of 1992, and Westates was preparing to begin construction of the second unit. The letter from EPA states that construction and operation of the second unit and the combined treatment capacity cannot exceed the treatment capacity in the original Part A. Since the first unit was shutdown in 1996 before startup of the second unit, which has a product design capacity of 1,200 lbs per hr, exceedance of the permitted capacity specified in the original Part A cannot occur.

On August 30, 1993, EPA sent a RCRA part B permit application "call-in" letter to Westates Carbon that requested submittal of a part B application for a permit under 40 CFR Part 264 subpart X, subpart AA and subpart BB, for the facility. The facility submitted their part B permit application to EPA in November 1995. Since the first thermal unit RF-1 has been shutdown and the other proposed expansion for hazardous waste storage in the permit application have not occurred at the facility, Westates Carbon must revise their part B permit application. They plan to submit their revisions to EPA in mid-2001. Hence, a final RCRA Permit has not been issued to Westates Carbon.

The carbon reactivation furnace RF-2 (SWMU 2) functions as a thermal treatment unit. Provisions of 40 CFR subpart EEE of the Clean Air Act (CAA) specify standards for three types of thermal treatment units, one of which is a hazardous waste incinerator. RF-2 (SWMU 2) is most similar to a hazardous waste incinerator. Therefore, EPA believes that the subpart EEE standards pertaining to existing hazardous waste incinerators are appropriate for the carbon reactivation unit at Westates.

In a letter dated January 18, 2001 from EPA to Westates Carbon, the EPA states that they will determine the applicability of each of the provisions in 40 CFR Part 63, subpart EEE (*National Emission Standards for Hazardous Pollutants from Hazardous Waste Combustors*) in reviewing Westates Carbon's RCRA part B permit application. All documents Westates develops pertaining to its RCRA permit application will reflect appropriate provisions of the subpart EEE, in addition to the RCRA permitting requirements of 40 CFR 264 and 40 CFR part 270, and applicable requirements of RCRA subparts AA, BB, and CC.

A *RCRA Closure Plan* dated February 4, 1993, has been submitted to EPA related to eventual closure of the hazardous waste portion of the facility, including all hazardous waste management units described in the facility's Part A application. Although the first thermal treatment unit RF-1 (SWMU 1) has been shutdown in June 1996 and will not be restarted, no information was found in the file material to confirm that certification of closure has occurred.

CRIT Reservation Environmental Laws
The lease agreement provides that Westates Carbon complies with all Federal, state and local environmental laws and regulations until such time as the CRIT adopts Reservation environmental laws.

Emergency Planning and Community Right-to-Know Act (EPCRA)
The facility is subject to the emergency planning and notification requirements of SARA Title III. The facility must immediately notify the local emergency planning committee and the state emergency response commission if there is a release of a reportable quantity (RQ) of the listed hazardous chemicals that result in off-site exposure. No report of release of a reportable quantity since the beginning operation of the facility in August 1992 were found in the facility's file information/data.

Westates Carbon filed a Toxic Release Inventory Report (Form R) for source reduction and recycling activities for the chemical, Benzene (28,132 lbs/year). The report is for the reporting year 1999, as required by Section 313 of EPCRA.

4.2 EPA Enforcement Actions

In 1994, a civil administrative enforcement action was instituted pursuant to Section 3008 (a)(1) of RCRA, based on violations observed during an EPA inspection of the facility in August 1993. The requirements for Westates Carbon were specified in the "Consent Agreement and Final Order, Westates Carbon-Arizona, Inc., Docket No. RCRA-09-04-0001," issued to the facility on February 16, 1994, which included violations such as failure to obtain hazardous waste tank assessments prior to beginning operations, as well as numerous record keeping deficiencies. All penalties and deficiencies have been addressed by Westates Carbon.

On March 15, 1994, a hazardous waste investigation was conducted by EPA at Westates Carbon. Pursuant to Section 3008 of RCRA, EPA required the facility to correct the identified areas of noncompliance and to submit documentation of their correction to EPA. The facility's subsequent response, dated August 10, 1994, adequately addressed the violation, and documented the facility's return to compliance with the regulations cited in the inspection report.

4.3 Inspection History

Since Westates Carbon began operation in 1992, EPA had conducted eight compliance inspections at Westates Carbon, and prepared reports for 6 of those inspections. The inspection in December 1998 found no violations at Westates. The inspection in September 1996 found no violations at Westates. The inspection in March 1995 found two potential violations: failure to submit the 1993 biennial report by the deadline; and failure to accurately report wastes generated. Westates addressed these violations within one week. The inspection in September 1994 found no violations at Westates. The inspection on March 15, 1994 found one potential violation: absence of a piece of documentation in the facility's personnel training files. Westates addressed this violation within six weeks.

The inspection in August 1993 found 11 potential violations at Westates: failure to properly label and date containers of RCRA hazardous waste; waste analysis plan deficiencies; failure to follow waste analysis plan; failure to remedy problems discovered during inspections in a timely manner; failure to operate in a way that minimizes the possibility of a hazardous waste release; contingency plan deficiencies; operating record deficiencies; failure to obtain tank assessments; failure to maintain secondary containment for tanks free of cracks and gaps; failure to conduct daily inspections of waste feed cutoff systems; and storage of RCRA hazardous waste in an area not specified in Part A of the permit application. As stated above, EPA issued Westates a determination of violations regarding these items in February 1994. EPA negotiated a Consent Agreement and Final Order with Westates regarding the violations, which was finalized in August 1995. In the Order, Westates was assessed a civil penalty of $57,515.

5.0 ENVIRONMENTAL SETTING

The information summarized in the following subsections was cited from the *Final Environmental Assessment* performed in February 1991 for construction of the Westates Carbon facility on Colorado Indian Tribal Lands, as referenced at the end of this PR Report.

5.1 Climate

The climate is typical of the Sonoran Desert Region and the Gila Desert. Winters are mild with minimum temperatures above freezing. The summers are long, hot, and dry with temperatures commonly exceeding 100° F. Average total precipitation is approximately 3.82 inches per year. Precipitation is sporadic, occurring mainly in the time intervals of July through September and December through February. The evaporation rate in this area is 86 inches per year.

5.2 Geology

The area has a hot arid climate, and is characterized by roughly parallel mountain ranges separated by alluvial basins. The elevation of the basins varies between sea level and 1,000 feet. The mountains are rugged and rise abruptly from the Colorado River or from alluvial slopes. The highest mountain summits in the region reach an average elevation of around 3,300 feet. Between the flood plain and the mountains are piedmont slopes, which are dissected by washes from the mountains and, in a few exceptions, into adjacent and topographically distinct basins. The facility is located on relatively flat terrain (slopes 0-3 percent).

The geologic units considered important to water resource development at the location of the Westates Carbon facility are the Miocene Fanglomerate, the Bouse Formation, and the aluvium of the Colorado River and its tributaries. The rocks of the mountains are relatively impermeable, and form the boundaries of the groundwater reservoirs. Interbasin water movement is limited by the impermeable bedrock and limited to groundwater movement in surface sediments, where intermittent surface drainage exits from a basin.

The bedrock includes all rocks older than the Miocene Fanglomerate, and contains sedimentary, metamorphic, and igneous rocks. These Miocene beds are gravel deposits that have eroded from the mountains and filled the basins. The thickness of these beds varies widely across the basins. The Fanglomerate is a potentially important aquifer as near Parker, where wells with a yield of 15 gallons per minute per foot of draw-down, have been developed in the Fanglomerate.

Samples taken at the site prior to construction of the facility indicated that only the eolian (windblown) sand and silt are present. The eolian sand is tan to light tan and fine to medium grained, occurring as a deposit on the surface throughout the area. The Westates Carbon site soil is classified as Superstition series, which is a gravelly loamy fine sand that develops on zero to three percent slopes.

5.3 Hydrology

5.3.1 Surface Water

The Westates Carbon facility is located approximately two and an eighth miles southeast of the Colorado River. The flood plain of the river is less than one mile wide near Parker, and increases to nine miles in the Parker Valley. The flood plain is that part of the Colorado River Valley that has been covered by floods of the Colorado River, prior to construction of Hoover Dam. The elevation of the flood plain near Parker is approximately 360 feet above sea level.

5.3.2 Groundwater

Groundwater in the Parker area occurs in both confined and unconfined aquifers. Most of the wells are completed in the Colorado River gravels (alluvium), where unconfined or water table conditions prevail. The Miocene Fanglomerate (gravel deposits at the base of mountains) and the lower part of the Bouse Formation contain confined aquifers (artesian). The geological age is not certain. The city wells in Parker obtain most of their water from the Miocene Fanglomerate. Sources of recharge to the groundwater supply of the area are the Colorado River, precipitation, and underflow from areas bordering Parker Valley.

A large amount of the groundwater is lost through evapotranspiration in the Parker area. Direct recharge from precipitation is limited. Loss of water from the Colorado River provides almost 50 percent of the recharge to the groundwater near Parker.

The groundwater elevation near Parker is approximately 350 feet above sea level. The depth to the groundwater in the areas bordering the flood plain ranges from 70 to 300 feet below the land surface. The depth to groundwater underlying the facility is not identified in the file material.

Chemical quality of the groundwater in the Parker area is generally related to the source and movement of the water. The chemical quality of the groundwater is influenced by evaporation, transpiration by native vegetation, former flooding of the river, irrigation developments, and to a marked degree by the local geology. The groundwater beneath the floodplain is relatively poor in quality, except where irrigation water has entered the aquifer. The shallow groundwater in the nonirrigated part of the valley has twice the mineral content as the Colorado River water.

5.4 Air/Wind

Data has been collected from the Yuma, Arizona air quality monitoring station. Yuma, Arizona is about 100 miles south of Parker. The data from the Yuma air quality monitoring station is representative of the air quality at Parker, Arizona. The Yuma District air quality generally meets or exceeds the National Ambient Air Quality Standards. There are only two air quality monitoring sites (both in downtown Yuma). A wind rose to determine the direction of prevailing winds at the facility is requested in the list of information needs in Appendix A.

5.5 Land Use

About 45 percent of the CRIT Reservation is used for irrigated farming. Most of the remainder of the Reservation is rangeland used for seasonal livestock grazing. The

CRIT Industrial Park comprises approximately 1,140 acres set aside for commercial and light industrial use. Westates Carbon acquired from the CRIT a Land Use Permit to operate the carbon reactivation facility (Permit Number B1122-CR 30.7).

5.6 Biological Environment

Desert Flora
Terrestrial vegetation at the facility site is associated with the desert scrub community of the Gila Desert. Creosote bush and burrobush are the predominant plant communities. Other native plants living in the area include desert trumpet, snakeweed, scorpion weed, lupine and brittle bush. Vegetation is sparse in most areas.

Desert Fauna
Songbirds, small mammals, amphibians and reptiles are common in the Gila Desert Cactus Plain at the Parker site.

Unique Ecosystems
The cactus plains dune ecosystem is located approximately one-half mile east of the Westates Carbon facility. The dunes provide a natural habitat to the Mojave fringe-toed lizard (Uma Scoparia) which is a candidate species on the Arizona Threatened Native Wildlife list. This species is threatened due to general loss of dune habitat. The Westates Carbon facility location is in the flat cactus plain area outside the dune area.

Endangered Species
After a site survey in March 1990, it was determined that no listed endangered plants or animals were found at the site proposed for building the carbon reactivation plant. However, there are two federally endangered or threatened species within the Parker area on CRIT property: the humpback sucker, and the desert tortoise.

6.0 SOLID WASTE MANAGEMENT UNITs (SWMUs) AND AREAs OF CONCERN (AOCs)

A map of the location of SWMUs is attached as Appendix D. The information and data provided below was cited in correspondence between EPA, the facility, and the Tribal representatives, as well as in the Part B permit application, as referenced at the end of this PR Report.

6.1 SWMU 1: Inactive Spent Carbon Reactivation Furnace, RF-1

Unit Description RF-1
RF-1 is a multiple hearth furnace consisting of four hearths and an external afterburner. The unit is located in the treatment area of the facility. The production capacity of RF-1

was at 600 lbs per hr. When operational, a venturi scrubber and packed bed scrubber were also part of the air pollution control equipment attached to RF-1 to clean flue gas prior to its discharge to the atmosphere. The spent carbon was introduced into the top hearth and flowed downward through the remaining three hearths. The top hearth was an unfired hearth where combustion gases generated in the bottom three hearths were used to complete the dewatering of the spent carbon. The bottom three hearths were fired hearths, where the pyrolysis and reaction steps of the reactivation process occurred. Rabble arms with teeth, each connected to a rotating center shaft, were located above each hearth. The center shaft was air cooled. Rabble teeth plowed the carbon material across the hearth surface and towards drop holes. The carbon fell through the drop holes to the next lower hearth and eventually to the outlet of the reactivation unit. Although smaller than RF-2, its structure and function is similar to that described below for the reactivation furnace RF-2.

Additional information for the unit description is needed. The location of RF-1, materials of construction, and the dimensions will be requested during the VSI.

Status and Wastes Managed

The unit is inactive. RF-1 is RCRA regulated and operated under interim status from 1992 until shutdown in June 1996. The electrical control panels for the old reactivation furnace (RF-1) have been removed so there remains no possibility that Westates Carbon could operate RF-1. Information on RCRA closure certification of RF-1 was not in the file material, although Westates Carbon has indicated that it will not restart the unit. The list of organic constituents that were thermally treated in RF-1 and that may have been adsorbed on the spent carbon is very extensive, and includes any of the hazardous constituents presented in Appendix B.

Release Controls

Prior to shutting down RF-1, a control valve located at the exit of the reactivation feed tank, T-8, was used to control feed to the reactivation unit. A three-position switch was used to place the control valve in one of three modes: hand/off/auto. Feed to RF-1 was also interrupted in an emergency using the dewatering screw emergency stop button. All equipment associated with RF-1 have been disabled.

To demonstrate that effective release controls were in place for RF-1, Westates submitted to EPA in February 2001, a summary of emissions data from tests Westates Carbon conducted in 1993 and 1994 for RF-1 and in 2000 for RF-2. The summary tables are in Appendix E.

History of Release

During a 1993 EPA inspection, the stack emission was described as clear, and the steam plume was observed to rapidly dissipate without a trace. There was a wisp of smoke from the upper end of the dewatering screw-conveyor, directly above the discharge chute to the furnace. Westates Carbon provided an explanation that this was due to insufficient draft at the furnace top hearth and also due to the fact that the screw-conveyor covers were not tightly closed.

The March 1994 Compliance Evaluation Inspection (CEI) report for the October 1993 inspection states that the facility failed to visually observe stack plume (emissions) at least hourly for normal appearance (color and opacity).

Remedial Actions

In 1993, Westates Carbon believed that the off gas oxidizer/afterburner system was limiting the furnace to about 80 percent of its capacity. Westates Carbon proposed to install a bigger fan with a control damper; a fan to blow air into the afterburner; and upgrade carbon monoxide and oxygen continuous emissions monitoring to modulate air blown into the afterburner to maintain a set carbon monoxide level in the stack.

Soil/Groundwater Release Potential

The release potential to soil and groundwater will be determined after completion of the VSI.

Surface Water Release Potential RF-1

The release potential to surface water will be determined after completion of the VSI.

Air Release Potential RF-1

When RF-1 was disabled, the existing continuous emission monitoring system (CEMS) located on the RF-1 stack was relocated and installed on unit RF-2.

While in operation, Westates Carbon tested for and reported stack emissions for contaminants from RF-1. All contaminants except particulates were below the EPA's 1994 emission standards for RF-1. The emissions testing and a health risk assessment have been performed to assess the potential risks associated with the facility emissions to human health and the environment. The RF-1 carbon regeneration furnace is no longer in operation as of June 1996, so the health risk from emissions and air release potential has been eliminated.

6.2 SWMU 2: Active Spent Carbon Reactivation Furnace, RF-2

Unit Description

RF-2 is a multiple hearth furnace consisting of five hearths and an external afterburner. The unit is located in the treatment area of the facility. The RF-2 air pollution control equipment includes: an afterburner, a venturi scrubber, a packed bed scrubber, and a wet electrostatic precipitator. The RF-2 unit yields a product design capacity of 1,200 lbs per hr with a spent carbon feed rate of 2,760 lbs per hr. The reactivation process in RF-2 involves drying, pyrolysis, and reaction.

RF-2 has an outside diameter of 12 feet 10 inches and is 19 feet 8 inches in height. The furnace is 10 feet off the ground. The hearth area required for drying, pyrolysis, and reaction zones in RF-2 is 123 feet^2, 88 feet^2, and 144 feet^2, for a total hearth surface area of 355 feet^2. RF-2 is a 12 feet-10 inches diameter x 5 heart unit, with a total hearth surface area of 355 feet^2 or less. The furnace shell is manufactured of carbon steel plate. The furnace was continuously seal welded internally to assure an air tight assembly. The furnace is internally lined with block firebrick and block insulation.

Status and Wastes Managed

The unit is active. Westates Carbon began operating the carbon reactivation furnace RF-2 as an interim status unit on July 11, 1996. The list of organic constituents that may be adsorbed on the spent carbon that is thermally treated in RF-2 is very extensive, and includes any of the hazardous waste and constituents presented in Appendix B.

Release Controls

To demonstrate that effective release controls are in place for RF-2, Westates submitted to EPA in February 2001, a summary of emissions data from tests Westates Carbon conducted in 1993 and 1994 for RF-1, and in 2000 for RF-2. The summary tables are provided in Appendix E. The emissions testing and a health risk assessment have been performed to assess the potential risks associated with the facility emissions to human health and the environment.

Reactivation of spent carbon wastes occurs in the RF-2 furnace which incorporates emission control equipment. A CEMS is installed in the stack to monitor the carbon monoxide and oxygen concentrations in the exhaust gas. The calibration data from the CEMS is checked daily to ensure the CEMS is operating within proper parameters. A venturi scrubber, packed bed scrubber, and wet electrostatic precipitator are provided to clean flue gas prior to its discharge to the atmosphere. The furnace and afterburner are equipped with a combustion air system. An induced draft fan is provided to draw combustion gases through the furnace, afterburner, and the air pollution control system. The clean gas stream is exhausted to the atmosphere via a stack.

The operation of RF-2 began in June 1996. RF-2 has an additional air pollution control device (a wet electrostatic precipitator) that the RF-1 did not have. The wet electrostatic precipitator is designed to reduce the level of the particulates of the stack gases.

A preliminary internal RF-2 stack test was performed on October 25-26, 2000. The facility is equipped with a rapid quench system that greatly reduces the chance for reformation of dioxins. The final performance test will analyze for dioxins. The emission levels for the contaminants tested in October 2000 were below EPA's emission standards that have been in place since 1999.

The RF-2 unit has a feed rate monitoring device in addition to the CEMS for continuous monitoring of carbon monoxide and oxygen. The reactivation unit, air pollution control equipment, and ancillary equipment (pumps, valves, and pipes) are visually inspected daily to ensure the absence of leaks, spills, fugitive emissions, and signs of unauthorized tampering.

A high level alarm is attached to the dewatering screw on RF-2 where water carbon slurry is dewatered prior to introduction into the reactivation furnace. A high level alarm for temperature is attached to the afterburner and hearths 3, 4, and 5 on RF-2.

Low flow and low pressure alarms are provided for the combustion air supply and the shaft cooling air supply to RF-2. A failure alarm is attached to the RF-2 burners, a high pressure alarm is provided for the RF-2 furnace draft, and a low speed alarm is installed to detect problems with the RF-2 center shaft rotation. In addition, high weight and low weight alarms are functional on RF-2.

If there is an explosion in the furnace or the afterburner, all equipment surrounding the furnace will be shut down. This includes all burner, fans, and the dewatering screw. Natural gas will be shut off manually.

A device in the furnace continuously monitors temperature. If the temperature in the furnace falls below the level necessary to destruct incoming contaminants, the furnace feed system is automatically shut off within one to two seconds, preventing carbon from entering the furnace. When carbon materials are exposed to the high temperatures in the furnace, the volatile organic compounds are destructed within approximately one second. This combination of nearly instantaneous destruction upon exposure to high temperature, and immediate feed system shut-off if temperature falls, prevents the release of volatile organic compounds.

A computer runs a program that controls the feed valve open-time and closed-time. The operators leave the closed time at 90 seconds and control the feed rate by adjusting the open time (about 3 seconds). Different hearth temperature profiles are set specific to spent carbon feed types. Feed rate is adjusted to maintain stack carbon monoxide levels below 100 ppm.

Currently, a state-of-the-art computer system continuously monitors 739 potential emission points at the plant every five seconds, of every hour, of every day. The add-on air pollution control equipment for RF-2 is discussed below and identified as SWMU 3.

<u>History of Release</u>
No history of release was found in the facility file material.

<u>Remedial Actions</u>
No descriptions of remedial actions were found in the facility file material.

Soil/Groundwater Release Potential
The soil/groundwater release potential will be determined after completion of the VSI.

Surface Water Release Potential
The surface water release potential will be determined after completion of the VSI.

Air Release Potential
The air release potential from RF-2 is low. As stated in a letter dated February 21, 2001 from Westates Carbon to EPA, RF-1 easily met the new CAA maximum available control technology (MACT) standards for dioxin emissions. Preliminary internal RF-2 stack test data from October 25-26, 2000 reveals that RF-2 not only meets the MACT standards for existing, but also new sources. RF-2 was not tested for dioxins as the facility is not and will not be permitted to receive dioxin codes. The final RCRA performance test for RF-2 will analyze for dioxins.

The RF-2 data compare favorably to data previously obtained for the facility's RF-1 unit. The revised permit application will seek finalization of the facility's RCRA Part B permit under the same furnace feed rate as is currently permitted, and has been operational since July 1996 (i.e., utilizing RF-2 only).

6.3 SWMU 3: RF-2 Air Pollution Control Equipment

Unit Description
The reactivation furnace RF-2 (SWMU 2) and air pollution control devices are contained in a central tower structure in the treatment area of the facility. An afterburner is provided to thermally oxidize any organic pollutants remaining in the off-gas stream from the reactivation unit. Venturi scrubbers are provided for particulate control, and packed-bed scrubbers are provided for acid gas and particulate matter control. A wet electrostatic precipitator is provided on RF-2 for additional particulate matter control.

The afterburner is a rectangular box design and includes a baffle wall to route the off gas from the furnace through the afterburner. The afterburner for RF-2 is a self supporting vertical cylindrical chamber 25 feet high with an inside diameter of 6 feet 9 inches.

The venturi scrubber is of the adjustable throat vertical downflow type. The throat area is adjusted by a pneumatic cylinder actuator and electro/pneumatic positioner. The throat can be adjusted to maintain a constant pressure differential. The elbow incorporates a water-filled gas impact section directly beneath the throat to prevent erosion of the shell. The water supply for venturi irrigation is recirculated scrubber water. The venturi scrubber is located directly below a quench section and is connected by a flooded elbow to the packed bed scrubber.

Scrubber water is supplied to and from the venturi scrubber and the packed bed scrubber via scrubber water supply lines and return lines. The packed bed scrubber for RF-2 consist of a vertical upflow and cylindrical disengaging section followed by a packed bed section and a mist eliminator. The bottom portion of the scrubber is used to de-entrain water droplets from the gas prior to entering the packed section of the scrubber.

The wet electrostatic precipitator is of a vertical tubular down-flow design with self irrigating tubes. The wet electrostatic precipitator consists of inlet gas distribution and straightening devices which are provided to distribute process gas flow entering the electrostatic precipitator, inlet and outlet plenums, a collecting electrode tube bundle, an intermittent flushing system, and a continuous drainage system. The electrostatic precipitator is also equipped with outboard high voltage insulator compartments.

Status and Wastes Managed

The units are active. The air pollution control devices on RF-1 are shutdown, but were operated under interim status. The add-on air pollution control devices on RF-2 are active and currently operate under interim status. When Westates receives their Final RCRA permit as a hazardous waste incinerator, as classified by EPA, the air pollution equipment will be monitored in accordance with applicable provisions of Subpart EEE of the CAA.

The air pollution control devices treat hot gases potentially containing hazardous constituents that are not completely destroyed in the hearth chambers of RF-2. The afterburner is provided to thermally oxidize any hazardous waste/organic pollutants remaining in the off-gas stream from RF-2 which may include any of the hazardous constituents listed in Appendix B. A venturi scrubber is provided for particulate control, and a packed-bed scrubber is provided for acid gas and particulate matter control. A wet electrostatic precipitator is provided on RF-2 for additional particulate matter control.

Release Controls

An induced draft fan is provided to exhaust combustion gases from the furnace and afterburner and through the air pollution control system. A high level alarm system, a high temperature alarm, and a low flow alarm for the scrubber water supply is installed on the packed bed scrubber.

Devices in the multi-staged scrubber system continuously monitor pressure drop and pH of the gases exhausted from the furnace. If these monitors detect readings outside prescribed levels, the carbon feed system is automatically shut off. The monitors protect against the release of acid gases or particulate emissions beyond concentration limits. The system also contains secondary continuous monitoring devices which monitor oxygen and opacity. These are backup devices to ensure that materials are properly combusted and that emissions meet standards.

History of Release
No release history for this unit was identified in the file material. Continuous emissions monitoring confirms that no release of hazardous constituents or hazardous air pollutants has occurred.

Remedial Actions
Remedial actions associated with this unit will be investigated during the VSI.

Soil/Groundwater Release Potential
The soil and groundwater release potential will be determined after completion of the VSI.

Surface Water Release Potential
The surface water release potential will be determined after completion of the VSI.

Air Release Potential
The air pollution control system is designed to control air emissions. A continuous emission monitoring system is installed in the stack to monitor the carbon monoxide and oxygen concentrations in the exhaust gas. The results of air monitoring reveal that a clean gas stream is continuously exhausted to the atmosphere.

6.4 SWMU 4: Unloading Hopper H-1

Unit Descriptions
Located across from the container storage area (SWMU 8) is the unloading hopper H-1. Trucks are unloaded directly into this large underground hopper. The spent carbon flows by gravity into the hopper to an underground eductor where water from Tank T-9 (SWMU 16) is injected into the spent carbon to form a slurry which is then piped to one of the four slurry storage tanks.

Additional information is needed on the unit description. This information will be investigated during the VSI.

Status and Wastes Managed
The unit is active. The hopper is not regulated under RCRA. Hazardous spent carbon that may have adsorbed any of the hazardous constituents listed in Appendix B are managed in the unloading hopper H-1. Nonhazardous spent carbon is also a manager in the hopper.

Release Controls
Emissions of volatile organic compounds (VOCs) which are released during the unloading process are partially contained by a roofed, three-sided structure. The fourth side of the structure is a roof to ground sheet of rubber strips approximately five inches wide where bulk shipments of spent carbon are unloaded. The VOCs, released from the spent carbon, into the space formed by the roofed, metal structure, and the rubber strips, are routed through a baghouse for particulate removal and then through a large, carbon adsorption canister for removal of VOCs before being vented to the atmosphere.

A dust collection system (SWMU 6) has been installed to collect the dust from the incoming carbon dump hoppers and conveyor system.

History of Release
Additional information is needed to determine the history of release. This will be investigated during the VSI.

Remedial Actions
Additional information is needed to determine if any remedial actions associated with this unit have been performed. Remedial actions associated with this unit will be investigated during the VSI.

Soil/Groundwater Release Potential
The potential for release to soil and groundwater will be determined after completion of the VSI.

Surface Water Release Potential
The potential to release to surface water will be determined after completion of the VSI.

Air Release Potential
The potential to release to air will be determined after completion of the VSI.

6.5 SWMU 5: Unloading Hopper H-2

Unit Descriptions
Various sized containers are removed from incoming trucks and stored in a bermed area within the container storage area (SWMU 8). In one corner of this container storage area is the spent carbon unloading hopper H-2. There is a lid on this hopper which is kept closed except when spent carbon is being emptied into the hopper.

Additional information is needed on the unit description. This information will be investigated during the VSI.

Status and Wastes Managed
The unit is active. The hopper is not regulated under RCRA. Hazardous spent carbon that may have adsorbed any of the hazardous constituents presented in Appendix B are managed in the dump hopper H-2. Nonhazardous spent carbon is also manager in the hopper.

Release Controls
Emissions of volatile organic compounds (VOCs) which are released during the unloading process are partially contained by a roofed, three-sided structure. The fourth side of the structure is a roof to ground sheet of rubber strips approximately five inches wide where bulk shipments of spent carbon are unloaded. The VOCs in the space formed by the roofed, metal structure and the rubber strips are routed through a baghouse for particulate removal, and then through a large, carbon adsorption canister for removal of VOCs before being vented to the atmosphere.

A dust collection system (SWMU 6) has been installed to collect the dust from the incoming carbon unloading hoppers and the conveyance system.

History of Release
Additional information is needed to determine the history of release which will be requested during the VSI.

Remedial Actions
Additional information is needed to determine if any remedial actions associated with this unit have been performed. Remedial actions associated with this unit will be investigated during the VSI.

Soil/Groundwater Release Potential
The potential for release to soil and groundwater will be determined after completion of the VSI.

Surface Water Release Potential
The potential to release to surface water will be determined after completion of the VSI.

Air Release Potential
The potential to release to air will be determined after completion of the VSI .

6.6 SWMU 6: Dust Collection System

Unit Description
The dust collection system is used to collect dust generated by facility operations not related to the reactivation process. The dust collection system has been installed to collect the dust from the incoming carbon dump hoppers and conveyor system.

Additional information is needed on the unit description. This information will be investigated during the VSI.

Status and Waste Managed

The unit is active. The system is not regulated under RCRA. Hazardous dust collected prior to the furnace step is returned to the furnace feed system. Nonhazardous dust collected after the furnace step is packaged and sold to the copper smelting industry. The dust may be contaminated with any of the hazardous constituents presented in Appendix B.

Release Controls

The systems are inspected weekly to ensure the dust collection bags are in good condition and the pressure drop across the systems are adequate. Additional information on release controls will be requested during the VSI.

History of Release

The *Compliance Evaluation Inspection Report* for 1994 presents one concern regarding the potential for release of hazardous carbon dust during unloading of drums and bulk loads to the hoppers, H-1 (SWMU 4) and H-2 (SWMU 5). During the inspection, there appeared to be a potential for release of fugitive dust due to the design of the hood/vacuum that pulls air from the receiving and unloading areas to one of the baghouses located on top of the carbon regeneration unit. The facility stated that the practice of watering down the waste carbon as it is unloaded effectively controls fugitive dust. The report states that the design of the hoods certainly could be improved and that the hopper areas should be more contained.

Additional information is needed on the history of release of waste from this unit., Release history for this unit will be investigated during the VSI.

Remedial Actions

Additional information is needed to determine if any remedial actions associated with this unit have been performed. Remedial actions associated with this unit will be investigated during the VSI.

Soil/Groundwater Release Potential

The soil/groundwater release potential will be determined after completion of the VSI.

Surface Water Release Potential

The surface water release potential will be determined after completion of the VSI.

Air Release Potential

The air release potential will be determined after completion of the VSI.

6.7 SWMU 7: Converyor Belt, Slurry, and Recycled Water Transfer System

Unit Description

Transfer equipment for nonhazardous and hazardous spent carbon includes: the equipment used to transfer the spent carbon from containers and tank trucks to the spent carbon storage tanks, from the spent carbon storage tanks to the reactivation furnace feed tanks, and from the reactivation furnace feed tanks to the reactivation units. The transfer equipment also includes conveyor belts, pumps, valves, piping, and the lift station.

All contaminated carbon pipelines (inlets, outlets, and overflows) are constructed of stainless steel, grade unknown. The pipelines are not lined internally. The material for all valves is stainless steel.

During an inspection in February, 1994, they were noted to be free from outside corrosion. All pipelines are supported throughout by hanger supports and steel bridge supports, and they are guided by "U" bolts.

Additional information is needed on the unit description. This information will be investigated during the VSI.

Status and Wastes Managed

The pumps, valves, conveyor belts, and piping are not regulated under RCRA. Hazardous spent carbon that may have adsorbed any of the hazardous constituents listed in Appendix B are managed in the transfer system. Nonhazardous spent carbon is also managed in the transfer system.

Release Controls

In the treatment and storage areas, the permanent piping used to transfer spent carbon is rated for at least 125 percent of the nominal operating pressure. All piping is compatible with waste which it is to service. All pumps are constructed of materials compatible with wastes which they service. Pumps are located with containment areas to prevent releases outside the contamination area in the event of a leak. The pump motors are teflon to minimize chances of electrical shorting if liquids contact the motors. All rotating parts of the pumps are fitted with guards.

All transfer equipment is inspected weekly for signs of corrosion and/or leaks and for proper operation.

History of Release

Additional information is needed on the history of release of waste from the transfer system. Release history will be investigated during the VSI.

Remedial Actions
Additional information is needed to determine if any remedial actions have been performed. Remedial actions associated with the transfer system will be investigated during the VSI.

Soil/Groundwater Release Potential
The soil and groundwater release potential will be determined after completion of the VSI.

Surface Water Release Potential
The surface water release potential will be determined after completion of the VSI.

Air Release Potential
The air release potential will be determined after completion of the VSI.

6.8 SWMU 8: Container Storage Area

Unit Description
At this unit, Westates Carbon has the capacity to store 100,000 gallons of containerized waste and 44,800 gallons of bulk spent hazardous waste carbon. The area is divided into hazardous waste storage and reactivated carbon product storage. The warehouse slab-on-grade is designed for secondary containment. The construction is 5 inch thick reinforced concrete (3,000 psi) slab on 2 inch sand on 6 millimeter visqueen vapor barrier on 4 inch compacted gravel base. All construction and control joints in the slab are sealed with a sealant, type unspecified. The slab is designed for warehouse storage use and light forklift traffic. The slab is sloped 1/8 inch per foot to trench drains which flow into a concrete sump. The slab slope is from the perimeter to the interior trench drains (1 foot by 1 foot minimum). The trench drains slope to a sump (3 feet by 3 feet by 3 feet for removal).

Any spills within the containment area will drain to the sump. The sump is equipped with a pump that removes any accumulation in the sump to one of the recycled water storage tanks T-9 and T12 (SWMUs 16 and 17). In addition, a continuous 5-inch high concrete curb is provided around the entire building.

Status and Wastes Managed
The unit is active. The container storage area operates under interim status. Containers (55-gallon drums or bulk packages) of nonhazardous and hazardous waste from off site are stored in this area. Also stored in this building are vessels that are triple-rinsed and laboratory wastes. Samples from incoming loads that have been analyzed are stored on metal shelves in sampling containers. These samples are kept in storage until the batch of spent carbon these were taken from is reactivated. The samples are then poured into the hopper for processing and the jars are triple-rinsed and reused.

The list of organic constituents that may be adsorbed on the spent carbon that is stored in this area is very extensive, and includes any of the hazardous constituents presented in Appendix B.

Release Controls
Westates Carbon inspects the container storage area on a daily schedule. The containment system is inspected for cracks, surface erosion, and the integrity of the surface coating, type unspecified. On the hazardous waste storage side, the floor is divided by a sump system that collects any spills or wash waters. Liquids collected in the sump system are pumped into the treatment process for spent carbon. Pumps are inspected monthly to ensure that they are free of leaks and that they are operating properly.

Containers used to transport and store spent carbon are visually inspected daily to ensure the absence of corrosion and/or leaks.

History of Release
Hazardous spent carbon was observed on the floor during the 1993 October inspection, although the floor had been recently washed down and fugitive dust was not observed.

Additional information is needed on the history of release of waste in this unit and from sump. Release history will be investigated during the VSI.

Remedial Actions
Additional information is needed to determine if any remedial actions have been performed in the container storage area. This will be investigated during the VSI.

Soil/Groundwater Release Potential
The soil and groundwater release potential will be determined after completion of the VSI.

Surface Water Release Potential
The surface water release potential will be determined after completion of the VSI.

Air Release Potential
The air release potential will be determined after completion of the VSI.

6.9 SWMU 9: Containment Pad With Secondary Containment Pit

Unit Description
The containment capacity of the pad is the capacity of the largest container located on the pad (approximately 45,000 gallons). The concrete pad is 44 feet by 139 feet by 4

inches and is located on the northwest end of the container storage area (SWMU 8). At the receiving area, secondary containment is present that is equipped with a sump and transfer pump to protect against subterranean waste migration in the event of primary vessel rupture. The secondary containment pit is vaulted and provides for inspection of primary vessels from all sides.

Additional information is needed on the unit description. It is unclear whether the containment pad is continuous as one unit or two separate units as the concrete unloading pad (Pad B), and the concrete pad underlying the processing area (Pad A). This information will be investigated during the VSI.

<u>Status and Wastes Managed</u>
The unit is active. The containment pad with a secondary containment pit is not regulated under RCRA. After the trucks are off-loaded by forklift onto the concrete containment pad, the drummed wastes are moved into the controlled storage area. The containment pad holds both a Baker tank, which stores rainwater and recycled water used for facility processes, and a bin for less than 90-day storage of hazardous waste debris generated onsite, such as rags, spill cleanup wastes, Tyvek®, booties, gloves, contaminated pallets, etc. This bin is transported offsite at least every 90 days for disposal. Pallets, empty product bags, and triple-rinsed drums awaiting shipment offsite to a drum reconditioner are also stored in this area. The Baker tank was brought onsite to collect and store excess rainwater, which is cycled into the slurry process as needed.

The list of organic constituents that may be adsorbed on the spent carbon that is off-loaded is very extensive, and includes any of the hazardous constituents presented in Appendix B.

<u>Release Controls</u>
In 1993, the concrete containment pad had several cracks but has since been filled with Sikadur® epoxy resin. The cracks in the concrete may be from improper installation.

The area used to load/unload containerized and bulk load spent carbon is visually inspected daily for cracks and spills. Flexible off-loading hoses with lockable "cam-lok" couplings are used in the concrete containment pad off-loading area. The hoses are acid/alkaline and pressure resistant.

<u>History of Release</u>
The inspection report dated March 1994 for the inspection conducted on October 27, 1993, documents that the facility failed to maintain the secondary containment system for tanks, free of cracks or gaps in the concrete unloading pad (Pad B), and the concrete pad underlying the processing area (Pad A), as well as berming associated with Pad A. The inspection report notes one crack in particular that appeared to be significant, in

that the epoxy filling appeared to have seeped below the pad surface. It was thought that this crack may potentially affect the integrity of the containment pad. Westates representatives stated at that time that the crack had been further sealed so as not to affect the integrity of the cap.

Additional information is needed on the history of release of waste from the transfer system. Release history will be investigated during the VSI.

Remedial Actions

After a lengthy search for an appropriate material to seal cracks, Westates Carbon found an epoxy that works well and has subsequently repaired all cracks in the pad and berm and has continued to inspect the pad daily.

Additional information is needed on remedial actions. This will be investigated during the VSI.

Soil/Groundwater Release Potential

The soil and groundwater release potential will be determined after completion of the VSI.

Surface Water Release Potential

The surface water release potential will be determined after completion of the VSI.

Air Release Potential

The air release potential will be determined after completion of the VSI.

6.10 SWMUs 10-13: Slurry Tank System

SWMU 10 - Spent Carbon/Slurry Storage Tank T-1
SWMU 11 - Spent Carbon/Slurry Storage Tank T-2
SWMU 12 - Spent Carbon/Slurry Storage Tank T-5
SWMU 13 - Spent Carbon/Slurry Storage Tank T-6

Unit Description

The material of construction for all tanks is stainless steel, specific grade unknown. The internal surfaces of all tanks are lined with Placed 7122HAR lining. All tanks were internally lined during the construction phase of the plant before they were placed in service in August 1992.

The slurry tank system design capacities are 11,220 gallons each.

All tanks are located outside on the east side of the control room and warehouse building. All tanks are supported on structures located within a common secondary containment that has U-drains routed to the rainwater storage tanks. Piping systems and pumps are also located within this secondary containment.

Status and Wastes Managed

The unit is active. The tanks are operated under interim status. Nonhazardous and hazardous spent carbon that may have adsorbed any of the hazardous constituents listed in Appendix B are managed in these tanks.

Release Controls

All tanks operate at atmospheric pressure and at a maximum temperature of 95° F. It is unclear how tanks are cooled. An overflow nozzle is installed on all tanks. A 3-inch diameter pressure safety valve with vacuum breaker is installed on Tanks T-1, T-2, T-5, and T-6. All the valves are set at 8 ounces for pressure relief and at 6 ounces to break the vacuum. High level and low level alarms for carbon level are on all tanks.

The slurry storage tank system, including any valves and piping associated with these tank systems, are visually inspected daily for leaks, cracks, and external corrosion. The overfill protection systems and valve position, and level monitoring systems are also visually inspected daily for proper operation. Tank markings for weathering and proper identification of tank contents, and external tank walls for signs of corrosion and pitting are checked .

The secondary containment area associated with the slurry storage tanks is visually inspected daily to ensure the integrity of the construction materials and the secondary containment system and to determine whether any liquids have accumulated. The containment system is visually inspected for cracks, surface erosion and signs of leakage.

History of Release

Outside visual inspections, ultrasonic testing, and static leak tests were performed on all tanks September 15, 1993, through September 18, 1993. All ancillary equipment (pipelines, fittings, flanges, valves, pumps, supports, etc.) were visually inspected and witnessed for static leak tests on February 21, 1994. The tanks were not anchored at that time and it was recommended that eight 1-inch diameter bolts on the skirt supports of tanks T-1, T-2, T-5, and T-6 be installed. On February 21, 1994 during the inspection, the outside surfaces and weld seams on all tanks, in general, were in good condition. However, the inspector did note that bolts on the skirt supports of tanks T-1, T-2, T-5 and T-6 were absent.

Remedial Actions

Documentation was not found in the file material that Westates Carbon has addressed the recommendation, post inspection in 1994, to install eight 1-inch diameter bolts on the skirt supports of tanks T-1, T-2, T-5, and T-6.

Additional information is needed to determine if any remedial actions associated with this unit have been performed. Remedial actions associated with this unit will be investigated during the VSI.

Soil/Groundwater Release Potential
The soil/groundwater release potential will be determined after completion of the VSI.

Surface Water Release Potential
The surface water release potential will be determined after completion of the VSI.

Air Release Potential
The air release potential will be determined after completion of the VSI.

6.11 SWMUs 14 and 15: Furnace Feed System

SWMU 14 - Furnace Feed System (RF-1 Feed Tank T-8, Dewatering Screw, and Weigh Belt Conveyor)
SWMU 15 - Furnace Feed System (RF-2 Feed Tank T-18, Dewatering Screw, and Weigh Belt Conveyor)

Unit Description
The furnace feed system (SWMU 15) for the water-carbon slurry to the reactivation furnace consists of the feed tank T-18, dewatering screw, and a weigh belt conveyor. Prior to introduction into the reactivation furnace, the water-carbon slurry is fed from the feed tank T-18 via a pipe system to a dewatering screw at the top of RF-2 where the carbon is dewatered. The water from the dewatering screw is routed to one of two recycled water tanks, T-9 (SWMU 16) or T-12 (SWMU 17), where it is then recycled through the recycled water transport system (SWMU 7). The dewatered spent carbon is then fed into the top hearth of the reactivation furnace by a weigh belt conveyor.

The feed tank T-18 was installed in July 1996. The holding capacity of feed tank T-8 (SWMU14) is 905 gallons, and that of feed tank T-18 (SWMU 15) was not found in the file material.

Additional information is needed on the unit descriptions. This information will be requested during the VSI.

Status and Waste Managed
The unit is active. Carbon slurry is fed by gravity from a feed tank (T-18) to a dewatering screw and then to the furnace. Nonhazardous and hazardous spent carbon that may have adsorbed any of the hazardous constituents listed in Appendix B are managed in the furnace feed system.

Release Controls
The pipe from the feed tank is vertical and contains a full-open/full-closed valve which controls the flow of carbon to the dewatering screw. The pipe from the valve to the dewatering screw is flexible and has a disconnect so that flow can be diverted to a bucket for feed measurement purposes. Waste feed cut-off systems are used to stop the feed of spent carbon into the reactivation units and is visually inspected daily to ensure that accurate data is being collected.

Air displaced from the furnace feed tanks passes through a carbon adsorber filter prior to being vented to the environment.

History of Release
In October 1993, during an inspection, the facility was observed to fail to operate in a way that minimizes the possibility of a release of hazardous waste/hazardous constituents as evidenced by fugitive emissions observed coming from the top of the dewatering screw. Inspection logs also indicated emissions from above the dewatering screw on August 1, 1993, and leaks from the dewatering screw on August 3, 1993.

During an inspection in December 1998, on one level of the reactivation furnace structure was a shallow pan. The facility representative stated the residue was from a relief valve and had accumulated over a period of weeks. The pan was used to prevent the material from dripping on workers below, as the material is possibly caustic. The inspector informed the facility representative that if this was hazardous waste, it could be considered satellite accumulation. Additional information will be requested during the VSI concerning how this was handled since the satellite accumulation area would be a SWMU.

Additional information is needed on the history of release of waste from these units, Release history for this unit will be investigated during the VSI.

Remedial Actions
Additional information is needed to determine if any remedial actions associated with these units have been performed. Remedial actions associated with this unit will be investigated during the VSI.

Soil/Groundwater Release Potential
The soil/groundwater release potential will be determined after completion of the VSI.

Surface Water Release Potential
The surface water release potential will be determined after completion of the VSI.

Air Release Potential
The air release potential will be determined after completion of the VSI.

6.12 SWMU 16: Recycled Water Storage Tank T-9

Unit Description

The capacity of Tank T-9 is 25,080 gallons. Tank T-9 contains water used to transfer carbon from the spent carbon storage tanks to the reactivation furnace. Just prior to introduction into the reactivation process, the spent carbon is dewatered by dewatering screws, and the transport water is returned to Tank T-9 where it is reused in the spent carbon transfer system.

Additional information is needed on the unit description regarding dimensions, materials of construction, location, and age. This information will be investigated during the VSI.

Status and Wastes Managed

The unit is active. The recycled water storage tank is not regulated under RCRA. However, the recycled water most likely contains traces of any of the hazardous constituents, as presented in Appendix B.

Release Controls

Any overflow of process water from the process storage feed tanks is returned (via closed loop piping) to Tank T-9.

Additional information is needed on the release controls for this unit. Release controls for this unit will be investigated during the VSI.

History of Release

In February 1994, the recycled water pump located next to Tank T-9 was found to be leaking at the packing, which seals the pump shaft. The leak was in the City water line used for cooling and flushing the seal gland. It is unclear where the water went, how it was cleaned up, and whether or not it reached the soil.

Additional information is needed on the history of release which will be requested during the VSI.

Remedial Actions

Remedial Actions will be determined after completion of the VSI.

Soil/Groundwater Release Potential

The soil/groundwater release potential will be determined after completion of the VSI.

Surface Water Release Potential

The surface water release potential will be determined after completion of the VSI.

Air Release Potential
The air release potential will be determined after completion of the VSI.

6.13 SWMU 17: Recycled Water/Rainwater Collection Tank T-12

Unit Description
The capacity of tank T-12 is 25,080 gallons. The facility can store the rainwater collected from paved areas, which is recycled into the carbon transfer system for consumptive use. All hazardous waste storage and treatment areas at the facility are surrounded by secondary containment systems. All rainwater that falls within these containment systems is collected and routed to one of the two recycled water tanks, T-9 or T-12. Tank T-12 contains rainwater that is collected from the containment pad and other processing areas of the facility.

Additional information is needed on the unit description regarding dimensions, materials of construction, location, and age. This information will be requested during the VSI.

Status and Wastes Managed
The unit is active. The rainwater is not a hazardous waste. However, it most likely contains traces of hazardous constituents from spent carbon dust.

Release Controls
The release controls associated with this unit will be determined during the VSI.

History of Release
Additional information is needed on the history of release of waste from this unit. Release history for this unit will be investigated during the VSI.

Remedial Actions
Additional information is needed to determine if any remedial actions associated with this unit have been performed. Remedial actions associated with this unit will be investigated during the VSI.

Soil/Groundwater Release Potential
The soil/groundwater release potential will be determined after completion of the VSI.

Surface Water Release Potential
The surface water release potential will be determined after completion of the VSI.

Air Release Potential
The air release potential will be determined after completion of the VSI.

6.14 SWMU 18: Scrubber Water Treatment/Storage Tank T-11

Unit Description
The capacity of Tank T-11 is 19,080 gallons. Tank T-11 contains scrubber blow-down that is stored prior to discharge an industrial sewer and to the local publically-owned treatment works (POTW) under a discharge permit. Tank T-11 and its ancillary equipment include a pH adjustment mechanism prior to discharge.

Additional information is needed on the unit description including dimensions, age, material of construction, and location. This information will be investigated during the VSI.

Status and Wastes Managed
The unit is active. This tank system is a wastewater treatment unit that may contain/treat hazardous constituents which may include any of the hazardous constituents as presented in Appendix B.

Release Controls
Additional information is needed on the release controls for this unit.

History of Release
Additional information is needed on the history of release of waste from this unit. Release history for this unit will be investigated during the VSI.

Remedial Actions
Additional information is needed to determine if any remedial actions associated with this unit have been performed. Remedial actions associated with this unit will be investigated during the VSI.

Soil/Groundwater Release Potential
The soil/groundwater release potential will be determined after completion of the VSI.

Surface Water Release Potential
The surface water release potential will be determined after completion of the VSI.

Air Release Potential
The air release potential will be determined after completion of the VSI.

6.15 SWMU 19: Scrubber Water Equalization Tank T-17

Unit Description
Sulfuric acid and sodium hydroxide are added to neutralize the scrubber water in this unit. Additional information is needed on the unit description. This information will be requested during the VSI.

Status and Waste Managed
The unit is active. Additional information is needed which will be investigated during the VSI.

Release Controls
A high and low alarm system is installed on the scrubber water equalization tank.

History of Release
Additional information is needed on the history of release of waste from this unit., Release history for this unit will be investigated during the VSI.

Remedial Actions
Additional information is needed to determine if any remedial actions associated with this unit have been performed. Remedial actions associated with this unit will be investigated during the VSI.

Soil/Groundwater Release Potential
The soil/groundwater release potential will be determined after completion of the VSI.

Surface Water Release Potential
The surface water release potential will be determined after completion of the VSI.

Air Release Potential
The air release potential will be determined after completion of the VSI.

6.16 SWMU 20: Slurry Transfer Inclined Plate Settler Tank V-1

Unit Description
The capacity of Tank V-1 is 2,100 gallons. Additional information is needed on the unit description. This information will be investigated during the VSI.

Status and Waste Managed
Additional information is needed which will be investigated during the VSI.

Release Controls
Additional information is needed on the release controls for this unit. Release controls for this unit will be investigated during the VSI.

History of Release
Additional information is needed on the history of release of waste from this unit. Release history for this unit will be investigated during the VSI.

Remedial Actions
Additional information is needed to determine if any remedial actions associated with

this unit have been performed. Remedial actions associated with this unit will be investigated during the VSI.

Soil/Groundwater Release Potential
The soil/groundwater release potential will be determined after completion of the VSI.

Surface Water Release Potential
The surface water release potential will be determined after completion of the VSI.

Air Release Potential
The air release potential will be determined after completion of the VSI.

6.17 SWMU 21: Scrubber Recycled Settler Tank V-2

Unit Description
The capacity of Tank V-2 is 1,100 gallons. Additional information is needed on the unit description. This information will be investigated during the VSI.

Status and Waste Managed
Additional information is needed which will be investigated during the VSI.

History of Release
Additional information is needed on the history of release of waste from this unit. Release history for this unit will be investigated during the VSI.

Remedial Actions
Additional information is needed to determine if any remedial actions associated with this unit have been performed. Remedial actions associated with this unit will be investigated during the VSI.

Soil/Groundwater Release Potential
The soil/groundwater release potential will be determined after completion of the VSI.

Surface Water Release Potential
The surface water release potential will be determined after completion of the VSI.

Air Release Potential
The air release potential will be determined after completion of the VSI.

6.18 SWMU 22: Filter Press V-3

Unit Description
The capacity of the filter press is 2 cubic feet. Additional information is needed on the unit description. This information will be investigated during the VSI.

Status and Waste Managed
Additional information is needed which will be investigated during the VSI.

History of Release
Additional information is needed on the history of release of waste from this unit. Release history for this unit will be investigated during the VSI.

Remedial Actions
Additional information is needed to determine if any remedial actions associated with this unit have been performed. Remedial actions associated with this unit will be investigated during the VSI.

Soil/Groundwater Release Potential
The soil/groundwater release potential will be determined after completion of the VSI.

Surface Water Release Potential
The surface water release potential will be determined after completion of the VSI.

Air Release Potential
The air release potential will be determined after completion of the VSI.

6.19 AOC 1: Receiving Unloading Area Vicinity, Extending Downwind to the Maximum Distance for Deposition of Contaminated Spent Carbon Dust

Spent carbon arriving via roll-off bins or slurry trucks is transferred into hoppers. Roll-off bins are lifted hydraulically at one end to tip the carbon waste into the hopper, and slurry trucks are fitted with hoses that pump carbon waste into the hopper. During the transfer process hazardous dust is released. Hazardous dust is collected in a hood and central dust collection system, however, some dust may be released.

Release of hazardous carbon dust to the atmosphere was observed during the inspection in October 1993 during unloading of drums to the hopper (H-1, SWMU 4) inside the container storage area building and bulk loads to hopper 2 (H-2, SWMU 5) outside in the processing area. The potential for release of fugitive dust is due to the design of the hood/vacuum that pulls air and dust from these areas to one of the baghouses located on the top of the carbon regeneration unit.

Additional information is needed to determine the extent of dust deposition which will be investigated during the VSI.

6.20 AOC 2: Area Surrounding the Cooling Tower and the Lift Station

On November 10, 1994, Westates Carbon experienced a spill from its lift station. The spill contained domestic sewage and scrubber water blowdown which is discharged to the local POTW. The occurrence was caused by a power outage in the Parker area which tripped the breaker on one of two pumps at the lift station. An employee noticed the lift station overflowing and immediately corrected the problem by resetting the breaker. An estimated 16 cubic yards of soil was impacted. Both impacted and nonimpacted soil were sampled to determine whether the impacted soil contained levels of hazardous constituents above levels found in the nonimpacted soil. Laboratory results document that there is no supporting evidence of contamination of the soil due to the spill. The soil was not removed since it was determined to be clean material.

On April 17, 1995, another spill occurred from the lift station. The spill contained domestic sewage and scrubber water blowdown which is discharged to the local POTW. The occurrence was caused by a power outage in the Parker area coupled with a breaker tripping in the plant. An employee noticed the lift station overflowing an immediately corrected the problem by resetting the breaker. An estimated 30 cubic yards of soil was impacted. The soil was tested and the analytical results supported the soil being handled as a clean material.

On February 15, 1996, a spill from the plant discharge line occurred. Spillage of domestic sewage and scrubber blowdown was localized with no migration. An estimated six drums of impacted soil resulted from the cleanup activity. The material was managed as hazardous waste and sent off site for incineration at APTUS in Utah.

Additional information is needed to determine if additional spills have occurred around the lift station and cooling tower area.

6.21 Other Spill History

On September 26, 1998 a discharge of plant motive water from an on-site vehicle delivering spent carbon to the facility occurred. Plant motive water is in contact with spent hazardous carbon. Approximately 100 gallons was released on the soil just outside the main gate of the plant. Westates Carbon immediately started containment and cleanup procedures. Sixty-six drums of impacted rocks and soil were managed as a listed waste and shipped off site to be incinerated at APTUS in Aragonite, Utah.

7.0 EXPOSURE PATHWAYS AND HUMAN AND ENVIRONMENTAL RECEPTORS

7.1 Surface Water

The Colorado River is the major stream adjacent to the site, approximately two and one-eighth miles northwest of the Westates Carbon facility. Therefore, the potential for exposure of human or environmental receptors to hazardous constituents or hazardous waste is likely if a release occurs.

7.2 Groundwater

The population within four miles of the site is approximately 4,451 people. There are three water purveyors who own drinking water wells within 4 miles of the site; these are the Arizona Department of Water Resources (ADWR); the City of Parker; and the County of La Paz. In addition, there are other private wells (the Big River Indian Reservation); irrigation wells; and nonpermitted shallow "sand-point" wells. ADWR has four wells within four miles of the site, which are on CRIT property. These wells serve 4,000 people and are capable of blending water from the City of Parker and Colorado River for emergency purposes. The depth to groundwater is 80 to 100 feet below ground surface and flows from the northeast to the southwest. The drinking water from these wells meets all primary water quality standards in the CWA. Therefore, the potential for exposure of human or environmental receptors to hazardous waste or hazardous constituents via groundwater is unlikely if a release occurs, due to the depth to groundwater and the high evapotranspiration rate.

7.3 Air

Weststates Carbon has installed State-of-the-Art air pollution control equipment on the reactivation furnace. However, before a determination can be made on the potential for exposure of human and environmental receptors to air releases, such as from unloading of hazardous spent carbon, additional information on the history of release associated with the SWMUs at the site must be obtained. This information will be investigated during the VSI.

7.4 On-site Surface Soil

Before a determination can be made on the potential for the exposure of human and environmental receptors to onsite surface soil, additional information on the history of release associated with the SWMUs at the site must be obtained. This information will be investigated during the VSI.

8.0 VISUAL SITE INSPECTION

8.1 Purpose of the Visual Site Inspection

A Visual Site Inspection (VSI) is conducted after the initial information-gathering step of the RFA process is complete. The purpose of the VSI is to obtain information that was not completely disclosed in the file review by visiting the facility. During the VSI, the focus is to identify SWMUs and collect visual evidence of releases at the facility. The information gathered during the VSI is evaluated along with the information gathered during the Preliminary Review step to determine the probability that a release has occurred at the facility. The VSI is currently scheduled for July 12, 2001.

8.2 Summary of the Visual Site Inspection

A summary of the VSI will be completed after the performance of the Visual Site Inspection.

9.0 SUGGESTIONS FOR FURTHER ACTION

Suggestions for further action will be made after completion of the Visual Site Inspection.

10.0 REFERENCES

1. February 1991: Final Environmental Assessment (EA), Carbon Reactivation Plant at the Colorado River Indian Tribes Industrial Park, Parker, Arizona.

2. April 30, 1991: EPA Form 8700-12, First Notification of Regulated Waste Activity.

3. August 12, 1991: EPA Form 8700-23, Hazardous Waste Permit Application.

4. September 21, 1992: Preliminary Assessment Summary Memorandum submitted to EPA Region 9.

5. February 4, 1993: *RCRA* Closure Plan for RF-1 and RF-2, Westates Carbon-Arizona, Inc.

6. August 18, 1993: Memorandum from Ray Fox to Larry Bowerman.

7. December 8, 1993: Letter from Westates Carbon to USEPA Region XI; Re: EPA Inspection.

8. February 15, 1994: Determination of Violation, Compliance Order and Notice of Right to Request a Hearing ("Complaint") .

9. March 1994: *RCRA* Compliance Evaluation Inspection Report, Westates Carbon-Arizona, for the October 27, 1993 inspection.

10. July 13: 1994: Warning Letter , from Greg Czajkowski, Chief, EPA Region IX, to Jeffery Walsh, Westates Carbon-Arizona, regarding hazardous waste investigation on March 15, 1994.

11. October 21, 1994: Compliance Evaluation Inspection Report (for October 27, 1993 CEI) , March 1994 and Cover Letter from SAIC to EPA Region 9.

12. November 22, 1994: Letter from Westates Carbon-Arizona, Inc. to EPA Region IX; Re: Notice of Implementation of Contingency Plan (spill November 22, 1994).

13. March 9, 1995: RCRA Compliance Evaluation Inspection Report.

14. April 27, 1995: Letter from Westates Carbon-Arizona, Inc. to EPA Region IX; Re: Notice of Implementation of Contingency Plan (spill April 17, 1995).

15. July 1995: Consent Agreement and Final Order, Westates Carbon-Arizona, Inc., Docket No. RCRA-09-04-0001," July 1995.

16. May 31, 1995: RCRA Compliance Evaluation Inspection Report.

17. November 1995: RCRA Part B Permit Application, Westates Carbon, Parker Arizona.

18. September 19, 1995: RCRA Compliance Evaluation Inspection Report.

19. February 20, 1996: Letter from Westates Carbon-Arizona, Inc. to EPA Region IX; Re: Notice of Implementation of Contingency Plan (spill February 15, 1996).

20. May 8, 1996: Cover letter, Permit and Fact Sheet for the Colorado River Sewage System Joint Venture for the Industrial Wastewater Discharge Permit No.: 1002-96.

21. December 19, 1996: Letter from Arlene Kabei, Chief Compliance Monitoring and Enforcement Section, EPA Region IX to Monte McCue, Plant Manager, Westates Carbon-Arizona, Inc. with attachment of RCRA Compliance Evaluation Inspection Report, December 18, 1996.

22. October 5, 1998: Letter from Monte McCue, Plant Manager, to Felicia Marcus, Regional Administrator, EPA Region IX; Re: Westates Carbon-Notice of Implementation of Contingency Plan.

23. 1999: Letter and EPCRA Form R for 1999, from Roy Provins, EH and S Manager to Daniel Eddy, Jr., Colorado River Indian Tribes.

24. January 26, 2000: Letter from Monte McCue, Plant Manager, US Filter/Westates Carbon to USEPA Region IX; Re: 1999 Air Emission Report for Westates Carbon-Arizona, Inc. under EPA Potential to Emit Transition Policy for Part 71 Implementation in Indian Country; Applicability of 40 CFR Part 63 Subpart EEE for RCRA Permitting Requirements at Westates.

25. January 31, 2000: Letter from Frances Schultz, Chief, RCRA Enforcement Section to Monte McCue, Plant Manager, Westates Carbon-Arizona, Inc. and a Copy of the Inspection Report for December 9-10, 1998.

26. August 22, 2000: Letter from Karen Scheuermann, Permits and Technical Assistance Office, Waste Management Division, EPA Region IX to Bradley Angel, Greenaction; Re: Biennial Reporting System data from 1993, 1995, and 1997 for Westates Carbon.

27. November 9, 2000: Open House Questions and Answers about Westates .

28. January 18, 2001: Letter from Jeff Scott, Acting Director, Waste Management Division, to Monte McCue, Plant Manager, Westates Carbon-Arizona, Inc., Re:

29. February 2001: Enclosure to Letter from Karen Scheuermann, EPA Region IX to Dave Harper, Mojave Elders and Bradley Angel, Greenaction: Westates' Emission Tests, Draft .

30. February 21, 2001: Letter from Monte McCue, Director, Plant Operations, US Filter/Westates Carbon, to Mr. Daniel Eddy,Chairman, Colorado River Indian Tribes, Re: US Filter Westates RCRA Part B Permit Application.

31. February 22, 2001: Letter from Monte McCue, Director, Plant Operations, US Filter/Westates Carbon, to Karen Scheuermann, USEPA Region IX, Re: Preliminary Internal RF-2 Stack Test Data October 25-26, 2000.

32. February 26, 2001: Letter from US Filter/Westates Carbon, Roy Provins, EH and S Manager to Karen Scheuermann, USEPA Region IX with attachment of analytical documentation for spills that occurred at Westates Carbon.

Appendix A: Information Needs for the VSI

Information Needs for the VSI

1. Inspection log for the dust collection system

2. Documentation of upgrade of the hood or hoods that draw(s) fugitive dust during the drum unloading process with more effective technology

3. Current Facility Layout Map with location of RCRA regulated units and other solid waste management units

4. Latest revised part A to document the current owner/operator of the facility

5. Copy of all revisions to the part B permit application or a copy of the entire revised part B permit application

6. Daily, weekly, monthly, and annual inspection checklists and logs (past years to current date) for hazardous waste management units/RCRA regulated units

7. Operating Data Logs for the plant process alarms and the reactivation furnace(s)

8. A current facility Process Flow Diagram as well as a Layout Map and Flow diagram for pipes, valves, pumps, and lift stations (i.e., the conveyance system for the spent carbon slurry, recycled water, and air pollution control equipment water)

9. A copy of the log or report of compliance and operating data for the computer system that continuously monitors 739 points at the plant

10. All reports for spills of hazardous waste and/or release of reportable quantities of hazardous substances/constituents

11. A copy of the Carbon Adsorber Replacement Logs

12. Documentation of Compliance with the Westates Carbon subpart CC Compliance Plan

13. List of and a detailed description of the structural materials, dimensions, age, and function of each of the solid waste management units (SWMU) at the Westates Carbon facility

14. Documentation of remedial actions associated with releases from solid waste management units at the facility

15. A Wind Rose applicable to the facility

Appendix B: Hazardous Waste Codes, and Hazardous Waste and Constituents Accepted for Treatment

HAZARDOUS WASTES RECEIVED AT THE PARKER FACILITY	
EPA WASTE CODE	WASTE DESCRIPTION
D001	A SOLID WASTE THAT EXHIBITS THE CHARACTERISTIC OF IGNITABILITY
D004	ARSENIC
D005	BARIUM
D006	CADMIUM
D007	CHROMIUM
D008	LEAD
D009	MERCURY
D010	SELENIUM
D011	SILVER
D012	ENDRIN
D013	LINDANE
D014	METHOXYCHLOR
D015	TOXAPHENE
D016	2,4-D
D017	2,4,5-(SILVEX)
D018	BENZENE
D019	CARBON TETRACHLORIDE
D020	CHLORDANE
D021	CHLOROBENZENE
D022	CHLOROFORM
D023	O-CRESOL
D024	M-CRESOL
D025	P-CRESOL
D026	CRESOL
D027	1,4-DICHLOROBENZENE
D028	1,2-DICHLOROETHANE
D029	1,1-DICHLOROETHYLENE
D030	2,4-DITROTOLUENE
D031	HEPTACHLOR (AND ITS EPOXIDE)
D032	HEXACHLOROBENZENE
D033	HEXACHLOROBUTADIENE
D034	HEXACHLOROETHANE
D035	METHYL ETHYL KETONE
D036	NITROBENZENE
D037	PENTRACHLOROPHENOL
D038	PYRIDINE
D039	TETRACHLOROETHYLENE

HAZARDOUS WASTES RECEIVED AT THE PARKER FACILITY	
EPA WASTE CODE	WASTE DESCRIPTION
D040	TRICHLOROETHYLENE
D041	2,4,5-TRICHLOROPHENOL
D042	2,4,6-TRICHLOROPHENOL
D043	VINYL CHLORIDE
F001	SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1 TRICHLOROETHANE, CARBON TETRACHLORIDE, CHLORINATED FLUOROCARBONS; AND MIXTURES/BLENDS CONTAINING A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) BEFORE USE OF ONE OR MORE OF THE ABOVE SOLVENTS OR SOLVENTS LISTED IN F002, F004 AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF SPENT SOLVENTS AND MIXTURES
F002	TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLOROETHANE; AND MIXTURES/BLENDS CONTAINING A TOTAL OF 10% OR MORE (BY VOLUME) BEFORE USE OF ONE OR MORE OF THE ABOVE SOLVENTS OR SOLVENTS LISTED IN F002, F004 AND F005 AND STILL BOTTOMS FROM RECOVERY OF SPENT SOLVENTS AND MIXTURES
F003	XYLENE, ACETONE ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANANE, METHANOL; MIXTURES/BLENDS OF ABOVE; AND 10% OR MORE (BY VOLUME) OF F001, F002, F004, F005; AND STILL BOTTOMS FROM RECOVERY OF SPENT SOLVENTS
F004	CRESOLS AND CRESYLIC ACID, NOTROBENZENE; SOLVENT MIXTURES/BLENDS OF 10% OR MORE BEFORE USE OF ONE OR MORE OF ABOVE OR F001, F002, F005; STILL BOTTOMS FROM RECOVERY OF SPENT SOLVENTS
F005	TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, 2-NITROPROPANE; MIXTURES/BLENDS OF 10% OR MORE (BY VOLUME) OF ABOVE OR SOLVENTS LISTED IN F001, F002, F004 AND STILL BOTTOMS FROM RECOVERY OF SOLVENTS
F006	WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM SULFURIC ACID ANODIZING OF ALUMINUM; TIN PLATING ON CARBON STEEL; ZINC PLATING ON CARBON STEEL; ALUMINUM, ZINC ALUMINUM PLATING ON CARBON STEEL; CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND CHEMICAL ETCHING AND MILLING OF ALUMINUM
F012	QUENCHING WASTEWATER TREATMENT SLUDGES FROM METAL HEAT TREATING OPERATIONS WHERE CYANIDES ARE USED
F019	WASTEWATER TREATMENT SLUDGES FROM CHEMICAL CONVERSION COATING OF ALUMINUM EXCEPT ZIRCONIUM PHOSPHATING IN ALUMINUM CAN WASHING
F025	CONDENSED LIGHT ENDS, SPENT FILTERS AND AIDS, SPENT DESICCANT WASTES FROM PRODUCTION OF CERTAIN CHLORINATED ALIPHATIC HYDROCARBONS (HAVING CARBON CHAIN LENGTHS RANGING FROM 1-5 WITH VARYING AMOUNTS AND POSITIONS OF CHLORINE SUBSTITUTION) BY FREE RADICAL CATALYZED PROCESSES.
F032	WASTEWATERS, PROCESS RESIDUALS, PRESERVATIVE DRIPPAGE, AND SPENT FORMULATIONS FROM WOOD PRESERVING PROCESSES GENERATED AT PLANTS THAT CURRENTLY USE OR HAVE PREVIOUSLY USED CHLORPHENOLIC FORMULATIONS

– HAZARDOUS WASTES RECEIVED AT THE PARKER FACILITY	
EPA WASTE CODE	WASTE DESCRIPTION
F035	WASTEWATERS, PROCESS RESIDUALS, PRESERVATIVE DRIPPAGE, AND SPENT FORMULATIONS FORM WOOD PRESERVING PROCESS GENERATED AT PLANTS THAT USE INORGANIC PRESERVATIVES CONTAINING ARSENIC OR CHROMIUM. DOES NOT INCLUDE K001 BOTTOM SEDIMENT SLUDGE FROM TREATMENT OF WASTEWATER FROM WOOD PRESERVING PROCESSES USING CREOSOTE AND/OR PENTACHLOROPHENOL
F037	PETROLEUM REFINERY PRIMARY OIL/WATER/SOLIDS SEPARATION SLUDGE. SLUDGE FROM GRAVITATIONAL SEPARATION OF OIL/WATER/SOLIDS DURING STORAGE OR TREATMENT OF PROCESS WASTEWATERS AND OILY COOLING WASTEWATERS FROM PETROLEUM REFINERIES. (OIL/WATER/SOLIDS SEPARATORS; TANKS AND IMPOUNDMENTS; DITCHES/CONVEYANCES; SUMPS; STORMWATER UNITS. SLUDGES FROM NON-CONTACT ONCE-THROUGH COOLING WATERS, SLUDG3ES FROM AGRESSIVE BIOLOGICAL TREATMENT UNITS, K051 WASTES
F038	PETROLEUM REFINERY SECONDARY (EMULSIFIED) OIL/WATER/SOLIDS SEPARATION SLUDGE-ANY SLUDGE AND/OR FLOAT GENERATED FROM THE PHYSICAL AND/OR CHEMICAL SEPARATION OF OIL/WATER/SOLIDS IN PROCESS WASTEWATERS AND OILY COOLING WASTEWATERS FROM PETROLEUM REFINERIES. SUCH WASTES INCLUDE, BUT ARE NOT LLIMITED TO, ALL SLUDGES AND FLOATS GENERATED IN: INDUCED AIR FLOTATION (IAF) UNITS, TANKS AND IMPOUNDMENTS, AND ALL SLUDGES GENERATED IN DAF UNITS. SLUDGES GENERATED IN STORMWATER UNITS THAT DO NBOT RECEIVE DRY WEATHER FLOW, SLUDGES GENERATED FROM NON-CONTACT ONCE-THROUGH COOLING WATERS SEGREGATED FOR TREATMENT FROM OTHER PROCESS OR OILY COOLING WATERS, SLUDGES AND FLOATS GENERATED IN AGRESSIVE BIOLOGICAL TREATMENT UNITS (INCLUDING SLUDGES AND FLOATS GENERATED IN ONE OR MORE ADDITIONAL UNITS AFTER WASTEWATERS HAVE BEEN TREATED IN AGGRESSIVE GIOLOGICAL TREATMENT UNITS) AND F037,K048, AND K051 WASTES ARE NOT INCLUDED IN THIS LISTING.
F039	LEACHATE FROM DISPOSAL OF MORE THAN ONE RESTRICTED WASTE (HAZARDOUS UNDER SUBPART D; RESULTING FROM THE DISPOSAL OF ONE OR MORE OF EPA HAZARDOUS WASTES: F020, F021, F022, F026, F027, AND/OR F028)
K001	WASTEWATER TREATMENT SLUDGE BOTTOM SEDIMENT THAT USE CREOSOTE AND/OR PENTACHLOROPHENOL
K002	WASTEWATER TREATMENT SLUDGE FROM PRODUCTION OF CHROME YELLOW AND ORANGE PIGMENTS
K003	WASTEWATER TREATMENT SLUDGE FROM PRODUCTION OF MOLYBDATE ORANGE PIGMENTS
K004	WASTEWATER TREATMENT SLUDGE FROM PRODUCTION OF ZINC YELLOW PIGMENTS
K005	WASTEWATER TREATMENT SLUDGE FROM PRODUCTION OF CHROME GREEN PIGMENTS
K006	WASTEWATER TREATMENT SLUDGE FROM PRODUCTION OF CHROME OXIDE GREEN PIGMENTS (ANHYDROUS AND HYDRATED)
K007	WASTEWATER TREATMENT SLUDGE FROM PRODUCTION OF IRON BLUE PIGMENTS
K008	OVEN RESIDUE FROM PRODUCTION OF CHROME OXIDE GREEN PIGMENTS
K009	DISTILLATION BOTTOMS FROM THE PRODUCTION OF ACETALDEHYDE FROM ETHYLENE
K010	DISTILLATION SIDE CUTS FROM PRODUCTION OF ACETALDEHYDE FROM ETHYLENE

– HAZARDOUS WASTES RECEIVED AT THE PARKER FACILITY	
EPA WASTE CODE	WASTE DESCRIPTION
K014	VICINALS FROM THE PURIFICATION OF TOLUENEDIAMINE IN THE PRODUCTION OF TOLUENEDIAMINE VIA THE HYDROGENATION OF DINITROTOLUENE
K015	STILL BOTTOMS FROM DISTILLATION OF BENZYL CHLORIDE
K016	HEAVY ENDS OR DISTILLATION RESIDUES FROM PRODUCTION OF CARBON TETRACHLORIDE
K017	HEAVY ENDS (STILL BOTTOMS) FROM PURIFICATION COLUMN IN PRODUCTION OF EPICHLOROHYDRIN
K018	HEAVY ENDS FROM FRACTIONATION COLUMN IN ETHYL CHLORIDE PRODUCTION
K019	HEAVY ENDS FORM THE DISTILLATION OF ETHYLENE DICHLORIDE IN ETHYLENE DICHLORIDE PRODUCTION
K020	HEAVY ENDS FROM DISTILLATION OF VINYL CHLORIDE IN VINYL CHLORIDE MONOMER PRODUCTION
K022	DISTILLATION BOTTOM TARS FROM PRODUCTION OF PHENOL/ACETONE FROM CUMENE
K023	DISTILLATION LIGHT ENDS FROM PRODUCTION OF PHTHALIC ANHYDRIDE FROM NAPHTHALENE
K024	DISTILLATION BOTTOMS FROM PRODUCTION OF PHTHALIC ANHYDRIDE FROM NAPHTHALENE
K025	DISTILLATION BOTTOMS FROM THE PRODUCTION OF NITROBENZENEBY THE NITRATION OF BENZENE
K026	STRIPPING STILL TAILS FROM PRODUCTION OF METHY ETHYL PYRIDINES
K029	WASTE FROM PRODUCT STEAM STRIPPER IN PRODUCTION OF 1,1,1-TRICHLOROETHANE
K030	COLUMN BOTTOMS OR HEAVY ENDS FROM COMBINED PRODUCTION OF TRICHLOROETHYLENE AND PERCHLOROETHYLENE
K031	BY-PRODUCT SALTS GENERATED IN PRODUCTION OF MSMA AND CACODYLIC ACID
K032	WASTEWATER TREATMENT SLUDGE FROM PRODUCTION OF CHLORDANE
K033	WASTEWATER TREATMENT AND SCRUB WATER FROM CHLORINATION OF CYCLOPENTADIENE IN PRODUCTION OF CHLORDANE
K034	FILTER SOLIDS FROM FILTRATION OF HEXACHLOROCYCLOPENTADIENE IN PRODUCTION OF CHLORDANE
K035	WASTEWATER TREATMENT SLUDGES GENERATED IN PRODUCTION OF CREOSOTE
K036	STILL BOTTOMS FROM TOLUENE RECLAMATION DISTILLATION IN PRODUCTION OF DISULFOTON
K037	WASTEWATER TREATMENT SLUDGES FROM PRODUCTION DISULFOTON
K038	WASTEWATER FROM WASHING AND STRIPPING OF PHORATE PRODUCTION
K039	FILTER CAKE FROM FILTRATIN OF DIETHYLPHOSPHORODITHIOIC ACID IN PRODUCTION OF PHORATE
K040	WASTEWATER TREATMENT SLUDGE FROM PRODUCTION OF PHORATE
K041	WASTEWATER TREATMENT SLUDGE FORM PRODUCTION OF TOXAPHENE

– HAZARDOUS WASTES RECEIVED AT THE PARKER FACILITY	
EPA WASTE CODE	WASTE DESCRIPTION
K042	HEAVY ENDS OR DISTILLATION RESIDUES FROM DISTILLATION OF TETRACHLOROBENZENE IN PRODUCTION OF 2,4,5-T
K046	WASTEWATER TREATMENT SLUDGES FROM THE MANUFACTURING, FORMULATION AND LOADING OF LEAD-BASED INTIATING COMPOUNDS.
K048	DISSOLVED AIR FLOTATION FLOAT FROM PETROLEUM REFINING INDUSTRY
K049	SLOP OIL EMULSION SOLIDS FROM PETROLEUM REFINING INDUSTRY
K050	HEAT EXCHANGER BUNDLE CLEANING SLUDGE FROM PETROLEUM REFINING INDUSTRY
K051	API SEPARATOR SLUDGE FROM PETROLEUM REFINING INDUSTRY
K052	TANK BOTTOMS (LEADED) FROM PETROLEUM REFINING INDUSTRY
K061	EMISSION CONTROL DUST/SLUDGE FROM PRIMARY PRODUCTION OF STEEL IN ELECTRIC FURNACES
K064	ACID PLANT BLOWDOWN SLURRY/SLUDGE RESULTING FROM THE THICKENING OF BLOWDOWN SLURRY FROM PRIMARY COPPER PRODUCTION
K065	SURFACE IMPOUNDMENT SOLIDS CONTAINED IN AND DREDGED FROM SURFACE IMPOUNDMENTS AT PRIMARY LEAD SMELTING FACILITIES.
K066	SLUDGE FROM TREATMENT OF PROCESS WASTEWATER AND/OR ACID PLANT BLOWDOWN FROM PRIMARY ZINC PRODUCTION
K071	BRINE PURIFICATION MUDS FROM MERCURY CELL PROCESS IN CHLORINE PRODUCTION WHERE SEPARATELY PREPURIFIED BRINE IS NOT USED
K073	CHLORINATED HYDROCARBON WASTE FROM PURIFICAITON STEP OF THE DIAPHRAGM CELL PROCESS USING GRAPHITE ANODES IN CHLORINE PRODUCTION
K083	DISTILLATION BOTTOMS FROM ANILINE PRODUCTION
K084	WASTEWATER TREATMENT SLUDGES GENERATED DURING PRODUCTION OF VETERINARY PHARMACEUTICALS FROM ARSENIC OR ORGANO-ARSENIC COMPOUNDS
K085	DISTILLATION OR FRACTIONATION COLUMN BOTTOMS FROM PRODUCTION OF CHLOROBENZENES
K086	SOLVENT WASHES AND SLUDGES, CAUSTIC WASHES AND SLUDGES, OR WATER WASHES AND SLUDGES FROM CLEANING TUBS AND EQUIPMENT USED IN FORMULATION OF INK FROM PIGMENTS, DRIERS, SOAPS, STABILIZERS CONTAINING CHROMIUM AND LEAD
K087	DECANTER TANK TAR SLUGE FROM COKING
K088	SPENT POTLINERS FROM PRIMARY ALUMINUM REDUCTION
K090	EMISSION CONTROL DUST OR SLUDGE FROM FERROCHROMIUMSILICON PRODUCTION
K091	EMISSION CONTROL DUST OR SLUDGE FROM FERROCHROMIUM PRODUCTION
K093	DISTILLAION LIGHT ENDS FROM PRODUCTION OF PHTHALIC ANHYDRIDE FROM ORTHO-XYLENE
K094	DISTILLATION BOTTOMS FROM PRODUCTION OF PHTHALIC ANHYDRIDE FROM ORTHO-XYLENE
K095	DISTILLAION BOTTOMS FROM PRODUCTION OF 1,1,1-TRICHLOROETHANE
K096	HEAVY ENDS FROM HEAVY ENDS COLUMN FROM PRODUCTION OF 1,1,1-TRICHLOROETHANE

- HAZARDOUS WASTES RECEIVED AT THE PARKER FACILITY	
EPA WASTE CODE	WASTE DESCRIPTION
K097	VACUUM STRIPPER DISCHARGE FROM CHLORDANE CHLORINATOR IN PRODUCTION OF CHLORDANE
K098	UNTREATED PROCESS WASTEWATER FROM PRODUCTION OF TOXAPHENE
K100	WASTE LEACHING SOLUTION FROM ACID LEACHING OF EMISSION CONTROL DUST/SLUDGE FROM SECONDARY LEAD SMELTING
K101	DISTILLATION TAR RESIDUES FROM DISTILLATIONOF ANILINE-BASED COMPOUNDS IN PRODUCTION OF VETERINARY PHARMACEUTICALS FROM ARSENIC OR ORGANO-ARSENIC COMPOUNDS
K102	RESIDUE FROM USE OF ACTIVATED CARBON FOR DECOLORIZATION IN PRODUCTION OF VETERINARY PHARMACEUTICALS FRO ARSENIC OR ORGANO-ARSENIC COMPOUNDS
K103	PROCESS RESIDUES FROM ANILINE EXTRACTION FROM PRODUCTIONOF ANILINE
K104	COMBINED WASTEWATER STREAMS GENERATED FROM NITROBENZENE/ANILINE PRODUCTION
K105	SEPARATED AQUEOUS STREAM FROM THE REACTOR PRODUCT WASHING STEP IN PRODUCTION OF CHLOROBENZENES
K106	WASTEWATER TREATMENT SLUDGE FROM MERCURY CELL PROCESS IN CHLORINE PRODUCTION
K112	REACTION BY-PRODUCT WATER FROM THE DRYING COLUMN IN PRODUCTION OF TOLUENEDIAMINE VIA HYDROGENATION OF DINITROTOLUENE
K113	CONDENSED LIQUID LIGHT ENDS FROM THE PURIFICATIONOF TOLUENEDIAMINE IN PRODUCTION OF TOLUENEDIAMINE VIA HYDROGENATION OF DINITROTOLUENE
K114	VICINALS FROM PURIFICAITON OF TOLUENEDIAMINE IN PRODUCTION OF TOLUENEDIAMINE VIA HYDROGENATION OF DINITROTOLUENE
K115	HEAVY ENDS FROM THE PURIFICATION OF TOLUENEDIAMINE IN PRODUCTION OF TOLUENEDIAMINE VIA HYDROGENATION OF DINITROTOLUENE
K116	ORGANIC CONDENSATE FROM SOLVENT RECOVERY COLUMN IN PRODUCTION OF TOLUENE DIISOCYANATE VIA PHOSGENATION OF TOLUENEDIAMINE
K117	WASTEWATER FROM THE REACTOR VENT GAS SCRUBBER IN PRODUCTION OF ETHYLENE DIBROMIDE VIA BROMINATION OF ETHENE
K118	SPENT ADSORBENT SOLIDS FROM PURIFICATION OF ETHYLENE DIBROMIDE IN PRODUCTION OF ETHYLENE DIBROMIDE VIA BROMINATION OF ETHENE
K125	FILTRATION, EVAPORATION, AND CENTRIFUGATION SOLIDS FROM THE PRODUCTION OF ETHYLENEBISDITHIOCARBAMIC ACID AND ITS SALTS.
K126	BAGHOUSE DUST AND FLOOR SWEEPINGS IN MILLING AND PACKAGING OPERATIONS FROM PRODUCTION OR FORMULATION OF ETHYLENE BIS DITHIOCARBAMIC ACID AND ITS SALTS
P001	2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRAIONS GREATER THAN 0.3%
P002	ACETAMINE, N-(AMINOTHIOXOMETHYL); Also known as 1-ACETYL-2-THIOUREA
P003	ACROLEIN; Also known as 2-PROPENAL

EPA WASTE CODE	WASTE DESCRIPTION
P004	ALDRIN; Also known as 1,4,5,8-DIMETHANONAPHTHALENE, 1,2,3,4,10,10-HEXA-CHLORO-1,4,4A,5,8,8A,-HEXAHYDRO, (ALPHA, 4ALPHA, 4 ABETA, 5 ALPHA, 8ALPHA, 8ABETA)-
P005	ALLYL ALCOHOL; Also known as 2-PROPEN-1-OL
P007	5-(AMINOMETHYL)-3-ISOXAZOLOL; Also known as 3(2H)-ISOXAZOLONE, 5-(AMINOMETHYL)-
P008	4-AMINOPYRIDINE; Also known as 4-PYRIDINAMINE
P010	ARSENIC ACID H_3ASO_4
P011	ARSENIC OXIDE AS_2O_5; Also known as ARSENIC PENTOXIDE
P012	ARSENIC OXIDE AS_2O_3; Also known as ARSENIC TRIOXIDE
P013	BARIUM CYANIDE
P014	BENZENETHIOL; Also known as THIOPHENOL
P015	BERYLLIUM
P016	DICHLOROMETHYL ETHER; Also known as METHANE, OXYBIS[CHLORO-
P017	BROMOACETONE; Also known as 2-PROPANONE, 1-BROMO-
P018	BRUCINE
P020	DIOSEB; Also known as PHENOL, 2-(1-METHYLPROPYL)-4,6-DINITRO-
P021	CALCIUM CYANIDE; Also known as CALCIUM CYANIDE $CA(CN)_2$
P022	CARBON DISULFIDE
P023	ACETALDEHYDE, CHLORO-; Also known as CHLOROACETALDEHYDE
P024	BENZENAMINE, 4-CHLORO-; Also known as P-CHLORANILINE
P026	1-(O-CHLOROPHENYL)THIOUREA; Also known as THIOUREA, (2-CHLOROPHENYL)-
P027	PROPANENITRILE, 3-CHLORO-; Also known as 3-CHLOROPROPIONITRILE
P028	BENZENE, (CHLOROMETHYL)-; Also known as BENZYL CHLORIDE
P029	COPPER CYANIDE; Also known as COPPER CYANIDE CU(CN)
P030	CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED
P031	CYANOGEN; Also known as ETHANEDINITRILE
P033	CYANOGEN CHLORIDE; Also known as CYANOGEN CHLORIDE (CN)CL
P034	2-CYCLOHEXYL-4,6-DINITROPHENOL; Also known as PHENOL, 2-CYCLOHEXYL-4,6-DINITRO-
P036	ARSONOUS DICHLORIDE, PHENYL-; Also known as DICHLOROPHENYLARSINE
P037	DIELDRIN; Also known as 2,7:3,6-DIMETHANONAPHTH[2,3-B]OXIRENE, 3,4,5,6,9,9-HEXACHLORO-1A,2,2A,3,6,6A,7,7A-OCTAHYDRO-, (1AALPHA, 2BETS, 2AALPHA, 3BETAK, 6BETA, 6AALPHA, 7BETA, 7AALPHA)-
P038	ARSINE, DIETHYL-; Also known as DIETHYLARSINE
P039	PHOSPHORODITHIOIC ACID, O,O-DIETHYL S-[2-(ETHYLTHIO)ETHYL]ESTER; Also known as DISULFOTON
P040	O,O-DIETHYL O-PYRAZINYL PHOSPHOROTHIOATE; Also known as PHOSPHOROTHIOIC ACID, O, O-DIMETHYL O-(4 NITROPHENYL) ESTER

EPA WASTE CODE	WASTE DESCRIPTION
P041	PHOSPHORIC ACID, DIETHYL 4-NITROPHENYL ESTER; Also known as DIETHYL-P-NITROPHENYL PHOSPHATE
P042	1,2-BENZENEDIOL, 4-[HYDROXY-2-(METHYLAMINO)ETHYL]-,(R)-; Also known as EPINEPHRINE
P043	DIISOPROPYLFLUOROPHOSPHATE (DFP); Also known as PHOSPHOROFLUORIDIC ACID, BIS (1-METHYLETHYL)ESTER
P044	DIMETHOATE; Also known as PHOSPHORODITHIOIC ACID,O, O-DIMETHYL S-[2-(METHYLAMINO)-2-OXOETHYL]ESTER
P045	2-BUTANONE, 3, 3-DIMETHYL-1-(METHYITHIO)-,O-[METHYLOAMINO)CARBONYL]OXIME; Also known as THIOFANOX
P046	BENZENEETHANAMINE, ALPHA,ALPHA-DIMETHYL-; Also known as ALPHA,ALPHA-DIMETHYLPHENETHYLAMINE
P047	4,6-DINITRO-O-CRESOL, & SALTS; Also known as PHENOL,2-METHYL-4,6-DINITRO-, & SALTS
P048	2,4-DINITROPHENOL; Also known as PHENOL, 2,4-DINITRO-
P049	DITHIOBIURET; Also known as THIOIMIDODICARBONIC DIAMIDE $[H_2N)C(S)]_2NH$
P050	ENDOSULFAN; Also known as 6M9-METHANO-2,4,3-BENZODIOXATHIEPIN, 6,7,8,9,10,1K0-HEXACHLORO-1,5,5A,6,9,91-HEXAHYDRO-,3-OXIDE
P051	2,7:3,6-DIMETHANONAPHTH [2,3-B]OXIRENE, 3,4,5,6,9,9-HEXACHLORO-1A,2,2A,3,6,6A,7,7A-OCTAHYDRO-, (1AALPHA, 2BETA, 2ABETA, 3ALPHA, 6ALPHA, 6ABETA, 7BETA, 7AALPHA)-, & METABOLITES; Also known as ENDRIN; Also known as ENDRIN, & METABOLITES
P054	AZIRIDINE; Also known as ETHYLENEIMINE
P056	FLUORINE
P057	ACETAMIDE, 2-FLUORO-; Also known as FLUOROACETAMIDE
P058	ACETIC ACID, FLUORO-,SODIUM SALT; Also known as FLUOROACETIC ACIDE, SODIUM SALT
P059	HEPTACHLOR; Also known as 4,7-METHANO-1H-INDENE, 1,4,5,6,7,8,-HEPTACHLORO-3A,4,7,7A-TETRAHYDRO-
P060	1,4,5,8-DIMETHANONAPHTHALENE,1,2,3,4,10,10-HEXA- CHLORO-1,4,4A,5,7,8,8A-HEXAHYDRO-(1ALPHA, 4ALPHA, 4ABETA, 5BETA,8BETA,8ABETA)-; Also known as ISODRIN
P062	HEXAETHYL TETRAPHOSPHATE; Also known as TETRAPHOSPHORIC ACID, HEXAETHYL ESTER
P063	HYDROCYANIC ACID; Also known as HYDROGEN CYANIDE
P064	METHANE, ISOCYANATO-
P066	ETHANIMIDOTHIOIC ACID, N-[[(METHYLAMINO)CARBONYL]OXY]-, METHYL ESTER; Also known as METHOMYL
P067	AZINIDINE, 2-METHYL; Also known as 1,2-PROPYLENIMINE
P068	HYDRAZINE, METHYL-; Also known as METHYL HYDRAZINE
P069	2-METHYLLACTONITRILE; Also known as PROPANENITRILE, 2-HYDROXY-2-METHYL-

- HAZARDOUS WASTES RECEIVED AT THE PARKER FACILITY	
EPA WASTE CODE	WASTE DESCRIPTION
P070	ALDICARB; Also known as PROPANAL, 2-METHYL-2-(METHYLTHIO)-, O-[(METHYLAMINO)CARBONYL]OXIME
P071	METHYL PARATHION; Also known as PHOSPHOROTHIOIC ACID, O, O,-DIMETHYL O-(4-NITROPHENYL)ESTER
P072	ALPHA-NAPHTHYLTHIOUREA; Also known as THIOUREA, 1-NAPHTHALENYL-
P073	NICKEL CARBONYL; Also known as NICKEL CARBONYL $NI(CO)_4$, (T-4)-
P074	NICKEL CYANIDE; Also known as NICKEL CYNAIDE $NI(CN)_2$
P075	NICOTINE, & SALTS; Also known as PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-, (S)-, & SALTS
P077	BENZENAMINE, 4-NITRO-; Also known as P-NITROANILINE
P078	NITROGEN DIOXIDE; Also known as NITROGEN OXIDE NO_2
P082	METHANAMINE, N-METHYL-N-NITROSO-; Also known as N-NITROSODIMETHYLAMINE
P084	N-NITROSOMETHYLVINYLAMINE; Also known as VINYLAMINE, N-METHYL-N-NITROSO-
P085	DIPHOSPHORAMIDE, OCTAMETHYL-; Also known as OCTAMETHYLPYROPHOSPHORAMIDE
P087	OSMIUM OXIDE OSO_4, (T-4)-; Also known as OSMIUM TETROXIDE
P088	ENDOTHALL; Also known as 7-OXABICYCLO[2.2.1]HEPTANE-2,3-DICARBOXYLIC ACID
P089	PARATHION; Also known as PHOSPHORIC ACID, O,O-DIETHYL O-(4-NITROPHENYL)ESTER
P092	MERCURY, (ACETATO-O)PHENYL-; Also known as PHENYLMERCURY ACETATE
P093	PHENYLTHIOUREA; Also known as THIOUREA, PHENYL-
P094	PHORATE; Also known as PHOSPHORODITHIOIC ACID, O,O-DIETHYL; Also known as S-[ETHYLTHIO)METHYL] ESTER
P095	CARBONIC DICHLORIDE; Also known as PHOSGENE
P096	HYDROGEN PHOSPHIDE; Also known as PHOSPHINE
P097	FAMPHUR; Also known as PHOSPHOTHIOIC ACID, O-[4-[(DIMETHYLAMINO)SULFONYL]PHENYL] O,O-DIMETHYL ESTER
P098	POTASSIUM CYANIDE
P099	ARGENTATE(1-), BIS(CYANO-C)-, POTASSIUM; Also known as POTASSIUM SILVER CYANIDE
P101	ETHYL CYANIDE; Also known as PROPANENITRILE
P102	PROPARGYL ALCOHOL; Also known as 1-PROPYN-1-OL
P103	SELENOUREA
P104	SILVER CYANIDE
P105	SODIUM AZIDE
P106	SODIUḾ CYANIDE
P108	STRYCHNIDIN-10-ONE, & SALTS; Also known as STRYCHNINE, & SALTS
P109	TETRAETHYLDITHIOPYROPHOSPHATE; Also known as THIODIPHOSPHIRIC ACID, TETRAETHYL ESTER

– HAZARDOUS WASTES RECEIVED AT THE PARKER FACILITY	
EPA WASTE CODE	WASTE DESCRIPTION
P110	TETRAETHYL LEAD
P113	THALLIUM OXIDE TL_2O_3
P114	THALLIUM(L) SELENITE
P115	THALLIUM(L) SULFATE
P116	THIOSEMICARBAZIDE-
P118	TRICHLOROMETHANETHIOL
P119	VANADIC ACID, AMMONIUM SALT
P120	VANADIUM PENTOXIDE
P121	ZINC CYANIDE
P123	TOXAPHENE
U001	ACETALDEHYDE (I); Also known as ETHANAL (I)
U002	ACETONE (I); Also known as 2-PROPANONE (I)
U003	ACETONITRILE (I,T)
U004	ACETONITRILE (I,T)
U005	2, ACETYLAMINOFLUORENE; Also known as ACETAMIDE, N-9H-FLUOREN-2-YL-
U007	ACRYLAMIDE; Also known as 2-PROPENAMIDE
U008	ACRYLIC ACID (I); Also known as 2-PROPENOIC ACID (I)
U009	ACRYLONITRILE; Also known as 2-PROPENENITRILE
U010	AZIRINO[2',3':3,4]PYRROLO[1,2-a]INDOLE-4,7-DIONE,6-AMINO-8-[[(AMINOCARBONYL)OXY]METHYL]-1,1a,2,8,8a,8b-HEXAHYDRO-8a-METHOXY-5-METHYL-, [1aS-(1AALPHA, 8BETA, 8AALPHA, 8BALPHA)]-; Also known as MITOMYCIN C
U011	AMITROLE; Also known as 1H-1,2,-TRIAZOL-3-AMINE
U012	ANILINE (I,T); Also known as BENZENAMINE (I,T)
U014	AURAMINE; Also known as BENZENAMINE, 4,4'-CARBONIMIDOYLBIS[N,N-DIMETHYL-
U015	AZASERINE; Also known as L-SERINE, DIAZOACETATE (ESTER)
U016	BENZ[C]ACRIDINE
U017	BENZAL CHLORIDE; Also known as BENZENE,(DICHLOROMETHYL)-
U018	BENZ[A]ANTHRACENE
U019	BENZENE (I,T)
U021	BENZIDINE; Also known as [1,1'-BIPHENYL]-4,4'-DIAMINE
U022	BENZO[A]PYRENE
U024	DICHLOROMETHOXY ETHANE; Also known as ETHANE, 1,1'-[METHYLENEBIS(OXY)]BIS[2-CHLORO-
U025	DICHLOROETHYL ETHER; Also known as ETHANE,1,1'-OXYBIS[2-CHLORO-
U026	CHLORNAPHAZIN; Also known as NAPHTHALENAMINE, N,N'-BIS(2-CHLOROETHYL)-
U027	DICHLOROISOPROPYL ETHER; Also known as PROPANE, 2,2'-OXYBIS[2-CHLORO-
U028	1,2-BENZENEDICARBOXYLIC ACID, BIS(2-ETHYLHEXYL) ESTER; Also known as DIETHYLHEXYL PHTHALATE

– HAZARDOUS WASTES RECEIVED AT THE PARKER FACILITY	
EPA WASTE CODE	WASTE DESCRIPTION
U029	METHANE, BROMO-; Also known as METHYL BROMIDE
U030	BENZENE, 1-BROMO-4-PHENOXY-; Also known as 4-BROMOPHENYL PHENYL ETHER
U031	1-BUTANOL (I); Also known as N-BUTYL ALCOHOL (I)
U032	CHROMIC ACID H_2CRO_4, CALCIUM SALT; Also known as CALCIUM CHROMATE
U034	CHLORAL; Also known as ACETALDEHYDE, TRICHLORO-
U035	CHLORAMBUCIL; Also known as BENZENEBUTANOIC ACID, 4-[BIS(2-CHLOROETHYL)AMINO]-
U036	CHLORDANE, ALPHA & GAMMA ISOMERS; Also known as 4,7-METHANO-1H-INDENE, 1,2,4,5,6,7,8,8-OCTACHLORO-2,3,3A,4,7,7A-HEXAHYDRO-
U037	CHLOROBENZENE; Also known as BENZENE, CHLORO-
U038	CHLOROBENZILATE; Also known as BENZENEACETIC ACID, 4-CHLORO-ALPHA-(4-CHLOROPHENYL)-ALPHA-HYDROXY-, ETHYL ESTER
U039	P-CHLORO-M-CRESOL; Also known as PHENOL, 4-CHLORO-3-METHYL-
U041	EPICHLOROHYDRIN; Also known as OXIRANE, (CHLOROMETHYL)-
U042	2-CHLOROETHYL VINYL ETHER; Also known as ETHENE, (2-CHLOROETHOXY)-
U043	VINYL CHLORIDE; Also known as ETHENE, CHLORO-
U044	CHLOROFORM; Also known as METHANE, TRICHLORO-
U045	METHANE, CHLORO- (I,T); Also known as METHYL CHLORIDE (I,T)
U046	CHLOROMETHYL METHYL ETHER; Also known as METHANE, CHLOROMETHOXY-
U047	BETA-CHLORONAPHTHALENE; Also known as NAPHTHALENE, 2-CHLORO-
U048	O-CHLOROPHENOL; Also known as PHENOL, 2-CHLORO-
U049	4-CHLORO-O-TOLUIDINE, HYDROCHLORIDE; Also known as BENZENAMINE, 4-CHLORO-2-METHYL, HYDROCHLORIDE
U050	CHRYSENE
U051	CREOSOTE
U052	CRESOL (CRESYLIC ACID); Also known as PHENOL, METHYL-
U053	CROTONALDEHYDE; Also known as 2-BUTENAL
U055	CUMENE (I); Also known as BENZENE, (1-METHYLETHYL)- (I)
U056	BENZENE, HEXAHYDRO- (I); Also known as CYCLOHEXANE (I)
U057	CYCLOHEXANONE (I)
U058	CYCLOPHOSPHAMIDE; Also known as 2H-1,3,2-OXAZAPHOSPHORIN-2-AMINE, N,N-BIS (2-CHLOROETHYL)TETRAHYDRO-, 2-OXIDE
U059	DAUNOMYCIN; Also known as 5,12-NAPHTHACENEDIONE, 8-ACETYL-10-[(3-AMINO-2,3,6-TRIDEOXY)-ALPHS-L-LYXO-HEXOPYRANOSY)OXY]-7,8,9,10-TETRAHYDRO-6,8,11-TRIHYDROXY-1-METHOXY-, (8S-CIS)-
U060	DDD; Also known as BENZENE, 1,1'-(2,2-DICHLOROETHYLIDENE)BIS[4-CHLORO-
U061	DDT; Also known as BENZENE, 1,1'-(2,2,2-TRICHLOROETHYLIDENT)BIS[4-CHLORO-

– HAZARDOUS WASTES RECEIVED AT THE PARKER FACILITY

EPA WASTE CODE	WASTE DESCRIPTION
U062	DIALLATE; Also known as CARBAMOTHIOIC ACID, BIS(1-METHYLETHYL)-, S-(2,3-DICHLORO-2-PROPENYL) ESTER
U063	DIBENZ[A,H]ANTHRACENE
U064	DIBENZO[A,I]PYRENE; Also known as BENZO[RST]PENTAPHENE
U066	1,2-DIBROMO-3-CHLOROPROPANE; Also known as PROPANE, 1,2-DIBROMO-3-CHLORO-
U067	ETHANE, 1,2-DIBROMO-; Also known as ETHYLENE DIBROMIDE
U068	METHANE, DIBROMO-; Also known as METHYLENE BROMIDE
U069	DIBUTYL PHTHALATE; Also known as 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER
U070	o-DICHLOROBENZENE; Also known as BENZENE, 1,2-DICHLORO-
U071	m-DICHLOROBENZENE; Also known as BENZENE, 1,3-DICHLORO-
U072	p-DICHLOROBENZENE; Also known as BENZENE, 1,4-DICHLORO-
U073	3,3'-DICHLOROBENZIDINE; Also known as [1,1'-BIPHENYL]-4,4'-DIAMINE, 3,3'DICHLORO-
U074	1,4-DICHLORO-2-BUTENE (I,T); Also known as 2-BUTENE, 1,4-DICHLORO- (I,T)
U075	DICHLORODIFLUOROMETHANE; Also known as METHANE, DICHLORODIFLUORO-
U076	ETHANE, 1,1-DICHLORO-; Also known as ETHYLIDENE DICHLORIDE
U077	ETHANE, 1,2-DICHLORO-; Also known as ETHYLENE DIBROMIDE
U078	1,1-DICHLOROETHYLENE; Also known as ETHENE, 1,1-DICHLORO-
U079	1,2-DICHLOROETHYLENE; Also known as ETHENE, 1,2-DICHLORO-, (E)
U080	METHANE, DICHLORO-; Also known as METHYLENE CHLORIDE
U081	2,4-DICHLOROPHENOL; Also known as PHENOL, 2,4-DICHLORO-
U082	2,6-DICHLOROPHENOL; Also known as PHENOL,2,6-DICHLORO-
U083	PROPANE, 1,2-DICHLORO-; Also known as PROPYLENE DICHLORIDE
U084	1,3-DICHLOROPROPENE; Also known as 1-PROPENE, 1,3-DICHLORO-
U085	1,2:3,4-DIEPOXYBUTANE (I,T); Also known as 2,2'-BIOXIRANE
U086	N,N'-DIETHYLHYDRAZINE; Also known as HYDRAZINE, 1,2,-DIETHYL-
U087	O,O-DIETHYL S-METHYL DITHIOPHOSPHATE; Also known as PHOSPHORODITHIOIC ACID, 0,0-DIETHYL S-METHYL ESTER
U088	DIETHYL PHTHALATE; Also known 1,2-BENZENEDICARBOXYLIC ACID, DIETHYL ESTER
U089	DIETHYLSTILBESTEROL; Also known as PHENOL, 4,4'-(1,2-DIETHYL-1,2-ETHENEDIYL)BIS-, (E)
U090	DIHYDROSAFROLE; Also known as 1,3-BENZODIOXOLE, 5-PROPYL-
U091	3,3'-DIMETHOXYBENZIDINE; Also known as [1,1'-BIPHENYL]-4,4'-DIAMINE, 3,3'DIMETHOXY-
U092	DIMETHYLAMINE (I); Also known as METHANAMINE, N-METHYL- (I)
U093	BENZENAMINE, N,N-DIMETHYL-4-(PHENYLAZO)-; Also known as P-DIMETHYLAMINOAZOBENZENE
U094	BENZ[A]ANTHRACENE, 7,12-DIMETHYL-; Also known as 7,12-DIMETHYLBENZ[A]ANTHRACENE

– HAZARDOUS WASTES RECEIVED AT THE PARKER FACILITY	
EPA WASTE CODE	WASTE DESCRIPTION
U095	3,3'-DIMETHYLBENZIDINE; Also known as [1,1'-BIPHENYL]-4,4'-DIAMINE, 3,3'DIMETHYL-
U097	DIMETHYLCARBAMOYL CHLORIDE; Also known as CARBAMIC CHLORIDE, DIMETHYL-
U098	1,1-DIMETHYLHYDRAZINE; Also known as HYDRAZINE, 1,1-DIMETHYL-
U099	1,2-DIMETHYLHYDRAZINE; Also known as HYDRAZINE, 1,2,-DIMETHYL-
U101	2,4-DIMETHYLPHENOL; Also known as PHENOL, 2,4-DIMETHYL-
U102	DIMETHYL PHTHALATE; Also known as 1,2-BENZENEDICARBOXYLIC ACID, DIMETHYL ESTER
U103	DIMETHYL SULFATE; Also known as SULFURIC ACID, DIMETHYL ESTER
U105	2,4-DINITROTOLUENE; Also known as BENZENE, 1-METHYL-2,4-DINITRO-
U106	2,6-DINITROTOLUENE; Also known as BENZENE, 2-METHYL-1,3-DINITRO-
U107	DI-N-OCTYL PHTHALATE; Also known as 1,2-BENZENEDICARBOXYLIC ACID, DIOCTYL ESTER
U108	1,4-DIETHYLENEOXIDE; Also known as 1,4-DIOXANE
U109	1,2-DIPHENYLHYDRAZINE; Also known as HYDRAZINE, 1,2-DIPHENYL-
U110	DIPROPYLAMINE (I); Also known as 1-PROPANAMINE, N-PROPYL- (I)
U111	DI-N-PROPYLNITROSAMINE; Also known as 1-PROPANAMINE, N-NITROSO-N-PROPYL-
U112	ACETIC ACID ETHYL ESTER (I); Also known as ETHYL ACETATE (I)
U113	ETHYL ACRYLATE (I); Also known as 2-PROPENOIC ACID, ETHYL ESTER (I)
U114	ETHYLENEBISDITHIOCARBAMIC ACID, SALTS & ESTERS; Also known as CARBAMODITHIOIC ACID, 1,2- ETHANEDIYLBIS-, SALTS & ESTERS
U115	ETHYLENE OXIDE (I,T); Also known as OXIRANE (I,T)
U116	ETHYLENETHIOUREA; Also known as 2-IMIDAZOLIDINETHIONE
U117	ETHANE, 1,1'-OXYBIS-(I); Also known as ETHYL ETHER (I)
U118	ETHYL METHACRYLATE; Also known as 2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER
U119	ETHYL METHANESULFONATE; Also known as METHANESULFONIC ACID, ETHYL ESTER
U120	FLUORANTHENE
U121	TRICHLOROMONOFLUOROMETHANE; Also known as METHANE, TRICHLOROFLUORO-
U122	FORMALDEHYDE
U124	FURAN (I); Also known as FURFURAN (I)
U125	2-FURANCARBOXALDEHYDE (I); Also known as FURFURAL (I)
U126	GLYCIDYLALDEHYDE; Also known as OXIRANECARBOXYALDEHYDE
U127	HEXACHLOROBENZENE; Also known as BENZENE, HEXACHLORO-
U128	HEXACHLOROBUTADIENE; Also known as 1,3-BUTADIENE, 1,1,2,3,4,4-HEXACHLORO-
U129	LINDANE; Also known as CYCLOHEXANE, 1,2,3,4,5,6- HEXACHLORO-, (1ALPHA, 2ALPHA, 3BETA, 4ALPHA, 5ALPHA, 6BETA)-
U130	HEXACHLOROCYCLOPENTADIENE; Also known 1,3-CYCLOPENTADIENE, 1,2,3,4,5,5-HEXACHLORO-
U131	HEXACHLOROETHANE; Also known as ETHANE, HEXACHLORO-
U132	HEXACHLOROPHENE; Also known as PHENOL, 2,2'-METHYLENEBIS[3,4,6-TRICHLORO-

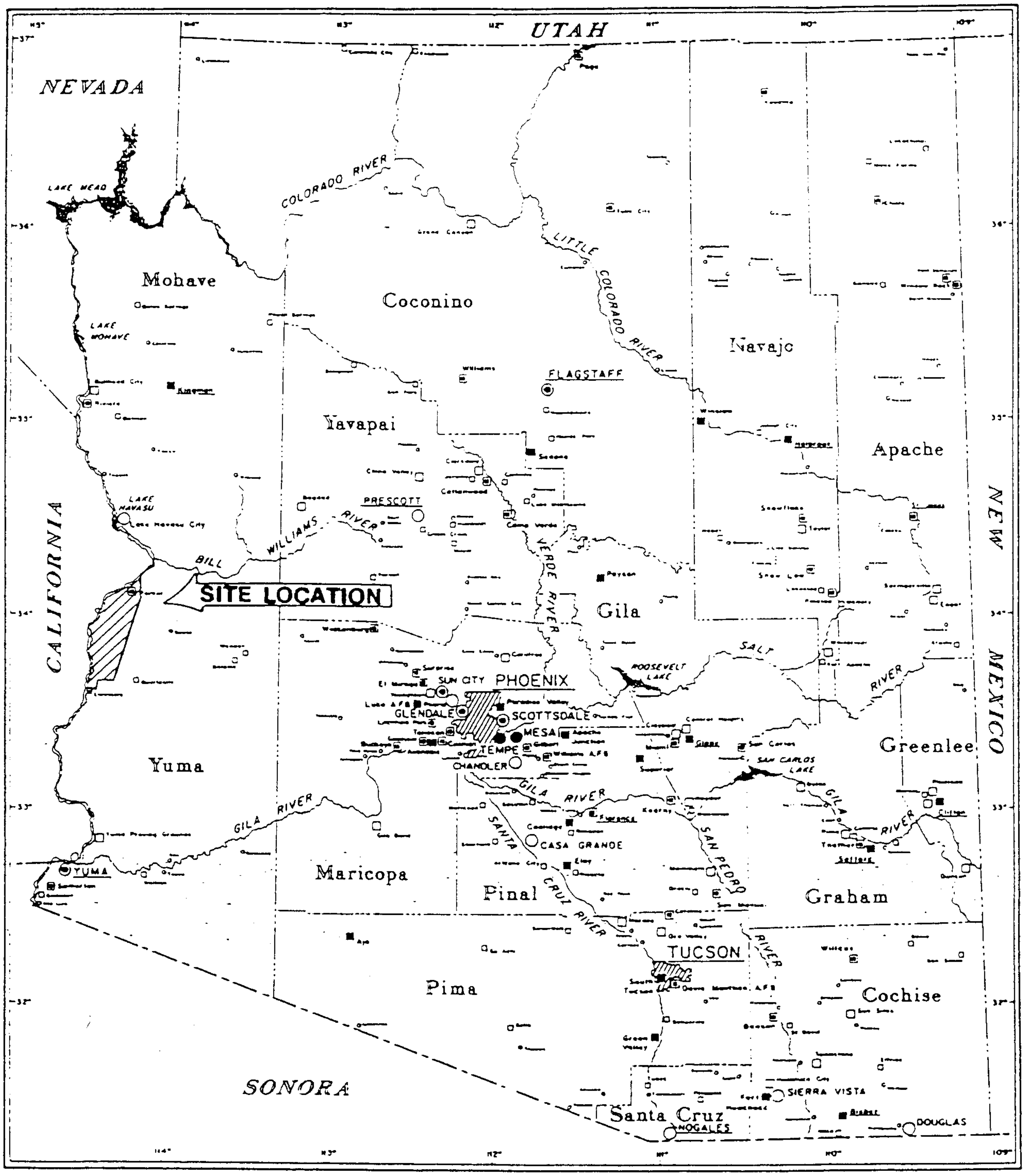
– HAZARDOUS WASTES RECEIVED AT THE PARKER FACILITY	
EPA WASTE CODE	WASTE DESCRIPTION
U135	HYDROGEN SULFIDE; Also known HYDROGEN SULFIDE H_2S
U136	ARSINIC ACID, DIMETHYL-; Also known as CACODYLIC ACID
U137	INDENO[1,2,3-CD]PYRENE
U138	METHANE, IODO-; Also known as METHYL IODIDE
U140	ISOBUTYL ALCOHOL, (I,T); Also known as 1-PROPANOL, 2-METHYL-, (I,T)
U141	ISOSAFROLE; Also known as 1,3-BENZODIOXOLE, 5-(1-PROPENYL)-
U142	KEPONE; Also known as 1,3,4-METHENO-2H-CYCLOBUTA[CD]PENTALEN-2-ONE, 1,1A,3,3A,4,5,5A,5B,6- DECACHLOROOCTAHYDRO-
U143	LASIOCARPINE; Also known as 2-BUTENOIC ACID, 2-METHYL-, 7-[2,3-DIHYDROXY-2-(1-METHOXYETHYL)-3-METHYL-1- OXOBUTOXY]METHYL]-2,3,5,6A-TETRAHYDRO-1H-PYRROLIZIN-1-YL ESTER,[1S-1ALPHA(Z),7(2S*,3R*),7AALPHA]]-
U144	ACETIC ACID, LEAD(2+) SALT; Also known as LEAD ACETATE
U145	LEAD PHOSPHATE; PHOSPHORIC ACID, LEAD(2+) SALT (2:3)
U146	LEAD, BIS(ACETATO-O) TETRAHYDROXYTRI-; Also known as LEAD SUBACETATE
U147	MALEIC ANHYDRIDE; Also known as 2,5-FURANDIONE
U148	MALEIC HYDRAZIDE; Also known as 3,6-PYRIDAZINEDIONE, 1,2-DIHYDRO-
U149	MALONONITRILE; Also known as PROPANEDINITRILE
U150	MELPHALAN; Also known as L-PHENYLALANINE, 4-[BIS(2-CHLOROETHYL)AMINO]-
U151	MERCYR
U152	METHACRYLONITRILE (I,T); Also known as 2-PROPENENITRILW, 2-METHYL- (I,T)
U153	METHANETHIOL (I,T); Also known as THIOMETHANOL (I,T)
U154	METHANOL (I); Also known as METHYL ALCOHOL (I)
U155	METHAPYRILENE; Also known 1,2-ETHANEDIAMINE, N,N- DIMETHYL-N'-W-PYRIDINYL-N'-(2- THIENYLMETHYL)-
U156	METHYL CHLOROCARBONATE (I,T); Also known CARBONOCHLORIDIC ACID, METHYL ESTER (I,T)
U157	BENZ[J]ACEANTHRYLENE, 1,2-DIHYDRO-3-METHYL-; Also known as 3-METHYLCHOLANTHRENE
U158	BENZENAMINE, 4,4'METHYLENEBIS[2-CHLORO-; Also known as 4,4'-METHYLENEBIS(2-CHLOROANILINE)
U159	METHYL ETHYL KETONE (MEK) (I,T); Also known as 2-BUTANONE (I,T)
U161	METHYL ISOBUTYL KETONE (I); Also known as 4-METHYL-2-PENTANONE (I) and PENTANOL, 4-METHYL-
U162	METHYL METHACRYLATE (I,T); Also known as 2-PROPENOIC ACID, 2-METHYL-, METHYL ESTER (I,T)
U163	MNNG; Also known as GUANIDINE, N-METHYL-N'-NITRO-N- NITROSO-
U164	METHYLTHIOURACIL; Also known as 4(1H)-PYRIMIDINONE, 2,3-DIHYDRO-6-METHYL-2-THIOXO-
U165	NAPHTHALENE

– HAZARDOUS WASTES RECEIVED AT THE PARKER FACILITY	
EPA WASTE CODE	WASTE DESCRIPTION
U166	1,4-NAPHTHALENEDIONE; Also known as 1,4-NAPHTHOQUINONE
U167	1-NAPHTHALENAMINE; Also known as ALPHA-NAPHTHYLAMINE
U168	2-NAPHTHALENAMINE; Also known as BETA-NAPHTHYLAMINE
U169	NITROBENZENE (I,T); Also known as BENZENE, NITRO-
U170	P-NITROPHENOL; Also known as PHENOL, 4-NITRO
U171	2-NITROPROPANE (I,T); Also known as PROPANE, 2-NITRO (I,T)
U172	N-NITROSODI-N-BUTYLAMINE; Also known as 1-BUTANAMINE, N-BUTYL-N-NITROSO-
U173	N-NITROSODIETHANOLAMINE; Also known as ETHANOL, 2,2'-(NITROSOIMINO)BIS-
U174	N-NITROSODIETHYLAMINE; Also known as ETHANAMINE, N-ETHYL-N-NITROSO-
U176	N-NITROSO-N-ETHYLUREA; Also known as UREA, N-ETHYL-N-NITROSO-
U177	N-NITROSO-N-METHYLUREA; Also known as UREA, N-METHYL-N-NITROSO-
U178	N-NITROSO-N-METHYLURETHANE; Also known as CARBAMIC ACID, METHYLNITROSO-,ETHYL ESTER
U179	N-NITROSOPIPERIDINE; Also known as PIPERIDINE, 1-NITROSO-
U180	N-NITROSOPYRROLIDINE; Also known as PYRROLIDINE, 1-NITROSO-
U181	BENZENAMINE, 2-METHYL-5-NITRO-; Also known as 5-NITRO-O-TOLUIDINE
U182	PARALDEHYDE; Also known as 1,3,5-TRIOXANE, 2,4,6- TRIMETHYL-
U183	PENTACHLOROBENZENE; Also known as BENZENE, PENTACHLORO-
U184	PENTACHLOROETHANE; Also known as ETHANE, PENTACHLORO-
U185	PENTACHLORONITROBENZENE (PCNB); Also known as BENZENE, PENTACHLORONITRO-
U186	1,3-PENTADIENE (I); Also known as 1-METHYLBUTADIENE (I)
U187	ACETAMIDE, N-(4-ETHOXYPHENYL)-; Also known as PHENACETIN
U188	PHENOL
U190	PHTHALIC ANHYDRIDE; Also known as 1,3-ISOBENZOFURANDIONE
U191	2-PICOLINE; Also known as PYRIDINE, 2-METHYL-
U192	BENZAMIDE,3,5-DICHLORO-N-(1,1-DIMETHYL-2-PROPYNYL)-; Also known as PRONAMIDE
U193	1,3-PROPANE SULTONE; Also known as 1,2-OXATHIOLANE, 2,2-DIOXIDE
U194	1-PROPANAMINE (I,T); Also known as N-PROPYLAMINE (I,T)
U196	PYRIDINE
U197	P-BENZOQUINONE; Also known as 2,5-CYCLOHEXADIENE-1,4-DIONE
U200	RESERPINE; Also known as YOHIMBAN-16-CARBOXYLIC ACID, 11,17-DIMETHOXY-18-[(3,4,5-TRIMETHOXYBENZOYL)OXY]-, METHYL ESTER, (3BETA, 16BETA, 17ALPHA, 18BETA, 20ALPHA)-
U201	RESORCINOL; Also known as 1,3-BENZENEDIOL
U202	SACCHARIN, & SALTS; Also known as 1,2-BENZISOTHIAZOL-3(2H)-ONE, 1,1-DIOXIDE, & SALTS
U203	SAFROLE; Also known as 1,3-BENZODIOXOLE, 5-(2- PROPENYL)-
U204	SELENIOUS ACID; Also known as SELENIUM DIOXIDE

EPA WASTE CODE	WASTE DESCRIPTION
U206	STREPTOZOTOCIN; Also known as GLUCOPYRANOSE, 2-DEOXY-2-(3-METHYL-3-NITROSOUREIDO)-, D-D-GLUCOSE, 2-DEOXY-2-[[(METHYLNITROSOAMINO)-CARBONYL]AMINO]-
U207	1,2,4,5-TETRACHLOROBENZENE; Also known as BENZENE, 1,2,4,5-TETRACHLORO-
U208	1,1,1,2-TETRACHLOROETHANE; Also known as ETHANE, 1,1,1,2-TETRACHLORO-
U209	1,1,2,2-TETRACHLOROETHANE; Also known as ETHANE, 1,1,2,2-TETRACHLORO-
U210	TETRACHLOROETHYLENE; Also known as ETHENE, TETRACHLORO-
U211	CARBON TETRACHLORIDE; Also known as METHANE, TETRACHLORO-
U213	TETRAHYDROFURAN (I); Also known as FURAN, TETRAHYDRO-(I)
U214	ACETIC ACID, THALLIUM(1+) SALT; Also known as THALLIUM(I) ACETATE
U215	THALLIUM(I) CARBONATE; Also known as CARBONIC ACID, DITHALLIUM(1+) SALT
U216	THALLIUM(I) CHLORIDE; Also known as THALLIUM CHLORIDE TLCL
U217	THALLIUM(I) NITRATE; Also known as NITRIC ACID, THALLIUM(1+) SALT
U218	THIOACETAMIDE; Also known as ETHANETHIOAMIDE
U219	THIOUREA
U220	TOLUENE; Also known as BENZENE, METHYL-
U221	TOLUENEDIAMINE; Also known as BENZENEDIAMINE, AR-METHYL-
U222	BENZENAMINE, 2-METHYL-, Also known as HYDROCHLORIDE O-TOLUIDINE HYDROCHLORIDE
U225	BROMOFORM; Also known as METHANE, TRIBROMO-
U226	ETHANE, 1,1,1-TRICHLORO-; Also known as METHYL CHLOROFORM
U227	1,1,2-TRICHLOROETHANE; Also known as ETHANE, 1,1,2-TRICHLORO-
U228	TRICHLOROETHYLENE; Also known as ETHENE, TRICHLORO-
U235	TRIS(2,3-DIBROMOPROPYL) PHOSPHATE; Also known as 1-PROPANOL, 2,3-DIBROMO-, PHOSPHATE (3:1)
U236	TRYPAN BLUE; Also known as 2,7-NAPHTHALENEDISULFONIC ACID, 3,3'-[(3,3'-DIMETHYL[1,1'-BIPHENYL]-4,4'- DIYL)BIS(AZO)BIS[5-AMINO-4-HYDROXY]-, TETRASODIUM SALT
U237	URACIL MUSTARD; Also known as 2,4-(1H,3H)-PYRIMIDINEDIONE, 5-[BIS(2-CHLOROETHYL)AMINO]-
U238	CARBAMIC ACID, ETHYL ESTER; Also known as ETHYL CARBAMATE (URETHANE)
U239	XYLENE (I); Also known as BENZENE, DIMETHYL- (I,T)
U240	ACETIC ACID, 92,4-DICHLOROPHENOXY)-, SALTS & ESTERS; Also known as 2,4-D, SALTS & ESTERS
U243	HEXACHLOROPROPENE; Also known as 1-PROPENE, 1,1,2,3,3,3- HEXACHLORO-
U244	THIOPEROXYDICARBONIC DIAMIDE $[(H_2N)C(S)]_2S_2$, TETRAMETHYL-; Also known as THIRAM
U246	CYANOGEN BROMIDE (CN)Br
U247	BENZENE, 1,1'(2,2,2-TRICHLOROETHYLIDENE)BIS[4-METHOXY-; Also known as METHOXYCHLOR

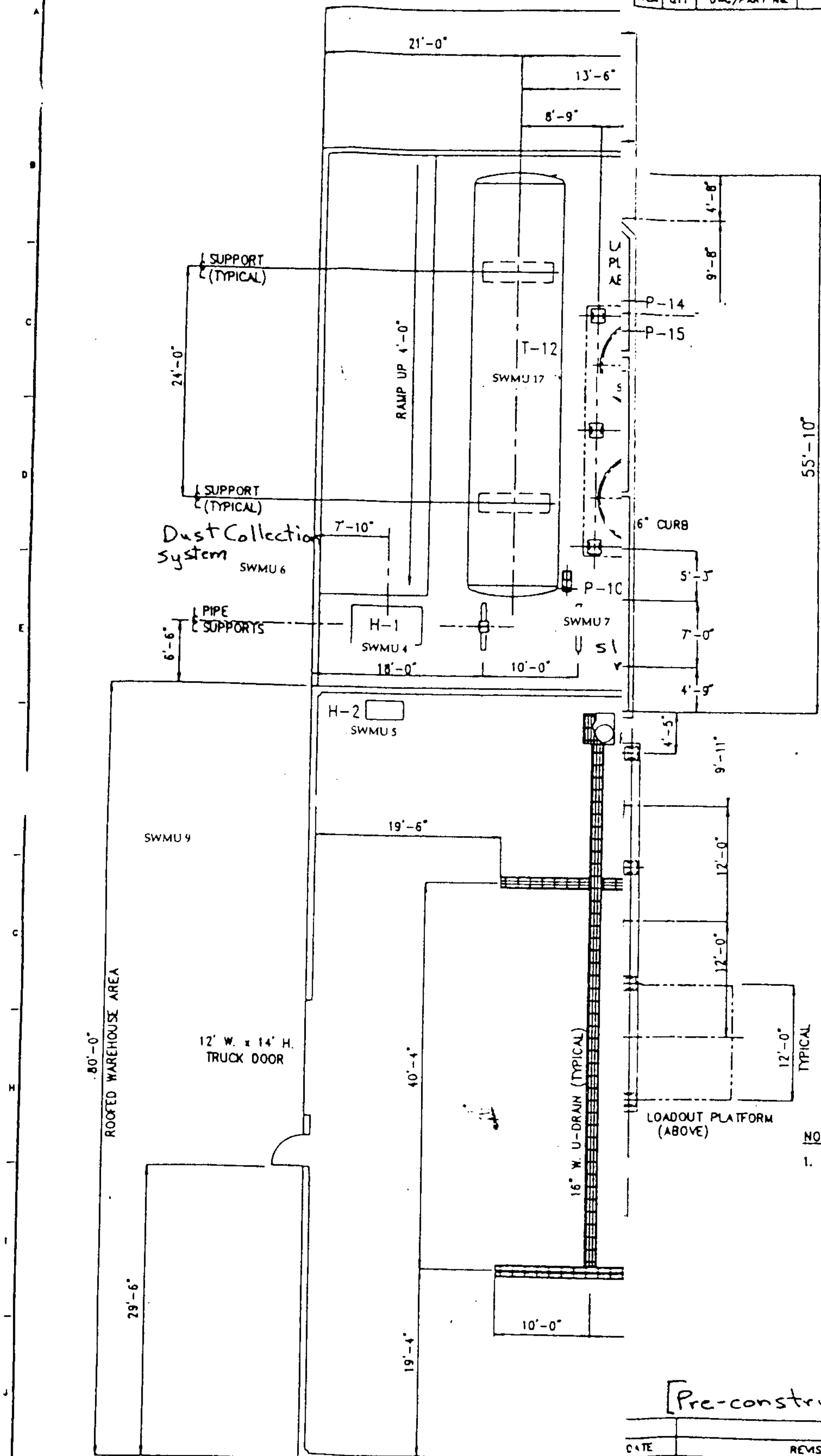
– HAZARDOUS WASTES RECEIVED AT THE PARKER FACILITY	
EPA WASTE CODE	WASTE DESCRIPTION
U248	WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS OF 0.3% OR LESS; Also known as 2H-1-BENZOPYRAN-2-ONE, 4- HYDROXY-3-(3-OXO-1-PHENYL-BUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS OF 0.3% OR LESS
U249	ZINC PHOSPHIDE Zn_3P_2 WHEN PRESENT AT CONCENTRATIONS OF 10% OR LESS
U328	BENZENAMINE, 2-METHYL-; Also known as o-TOLUIDINE
U353	BENZENAMINE, 4-METHYL-; Also known as p-TOLUIDINE
U359	ETHANOL, 2-ETHOXY-; Also known as ETHYLENE GLYCOL MONOETHYL ETHER

Appendix C: Site Location Maps



REGIONAL SITE LOCATION MAP

LIST OF COMPONENTS				DWG. # D11139-02
ITEM	QTY	DWG/PART No.	DESCRIPTION	



EQUIPMENT LIST:

C-3	TRANSPORTER
C-4	TRANSPORTER
CT-1	COOLING TOWER
H-1	CARBON HOPPER
H-2	CARBON HOPPER
HTX-1	HEAT EXCHANGER
P-1	SCRUBBER PUMP
P-4	RECYCLE WATER PUMP
P-5	RECYCLE WATER PUMP
P-6	FILTER PRESS PUMP
P-7	PROCESS WW PUMP
P-9	SUMP PUMP
P-10	TRANSFER PUMP
P-11	BOILER FEED PUMP
P-13	H2SO4 TOTE BIN AND METERING PUMP
P-14	H2SO4 TOTE BIN AND METERING PUMP
P-15	NAOH TOTE BINS AND METERING PUMPS
P-16	COOLING TOWER CIRC. PUMP
P-18	SUMP PUMP
S-2	CARBON STORAGE TANK
S-3	CARBON STORAGE TANK
S-4	CARBON STORAGE TANK
T-1	SPENT CARBON STORAGE TANK
T-2	SPENT CARBON STORAGE TANK
T-5	SPENT CARBON STORAGE TANK
T-6	SPENT CARBON STORAGE TANK
T-9	RECYCLE WATER STORAGE TANK
T-11	PROCESS WW STORAGE TANK
T-12	RECYCLE WATER STORAGE TANK
T-17	EQUALIZATION TANK
V-1	INCLINED PLATE SETTLER
V-3	FILTER PRESS
WS-1	ACTIVATED CARBON ADSORBER

SWMU 21 Scrubber Recycle Settler Tank V-2

NOTES:

1. THIS DRAWING INCLUDES COMPONENTS OF THE FACILITY THAT ARE EXEMPT FROM PERMITTING UNDER VARIOUS PROVISIONS OF RCRA. DATA RELATED TO THESE COMPONENTS IS PROVIDED FOR INFORMATIONAL PURPOSES AND EASE OF REVIEW ONLY, AND THEY ARE NOT INTENDED TO BECOME REGULATED COMPONENTS OF THE HAZARDOUS WASTE FACILITY.

[Pre-construction of RF-2]

DATE	REVISION DESCRIPTION	DRAWN	CHK'D	ENG'R	MGR.

W.C.A.L.
PARKER ARIZONA
OPC ← 2-23-94

WESTATES CARBON, INC
A WHEELABRATOR TECHNOLOGIES CO.
LOS ANGELES, CA 90040

TITLE: EQUIPMENT ARRANGEMENT CURRENT FACILITY

CODE CA | DWG # D14789-02E | REV. P5
PROJECT # 11139

DATE 3-10-94 REF. DWG # D11139-02

Table 3. Results of October 2000 Emissions Test Conducted by Westates (RF-2)

contaminant	Westates' 2000 Test maximum concentration	EPA Standard in 1999	units
hydrochloric acid and chlorine gas	5	77	ppmv
carbon monoxide	10	100	ppmv
particulate matter	12	34	mg/dscm
arsenic, beryllium, and chromium combined	10	97	ug/dscm
lead and cadmium combined	18	240	ug/dscm
mercury	9	130	ug/dscm

contaminant	Westates' 1993/1994 Test minimum DRE	EPA Standard in 1999	units
chlorobenzene	99.99984	99.99	%

Notes

Westates reported preliminary results of the October 2000 test in a letter to EPA dated 21 February 2001. The numbers in Table 3 above are taken from that letter. The test was conducted on October 25-26, 2000.

EPA Standard in 1999 is taken from the MACT rule for hazardous waste combustors, using standards for existing incinerators in 40 CFR 63.1203. Although the carbon regeneration furnace currently in operation at Westates (RF-2) does not fit EPA's regulatory definition of "incinerator", EPA expects to apply the MACT incinerator standards to RF-2 during the upcoming permit decision.

"DRE" is destruction and removal efficiency. It is a measure of how much of an organic compound going into the carbon regeneration furnace is destroyed and removed. A DRE of 99.99% means that of every 10,000 grams of the organic compound entering the carbon regeneration furnace, 9,999 grams are destroyed and removed, and 1 gram leaves through the stack.

Table 2. Results of 1993/1994 Emissions Tests Conducted by Westates (RF-1)

polycyclic aromatic hydrocarbon	Westates' 1993/1994 Test maximum concentration	units
acenaphthene	340	ng/dscm
acenaphthylene	696	ng/dscm
anthracene	386	ng/dscm
benzo(a)anthracene	1,890	ng/dscm
benzo(b)fluoranthene	1,240	ng/dscm
benzo(k)fluoranthene	305	ng/dscm
benzo(g,h,i)perylene	220	ng/dscm
benzo(a)pyrene	111	ng/dscm
benzo(e)pyrene	359	ng/dscm
chrysene	2,780	ng/dscm
dibenz(a,h)anthracene	22	ng/dscm
fluoranthene	7,340	ng/dscm
fluorene	243	ng/dscm
ideno(1,2,3-c,d)pyrene	107	ng/dscm
2-methylnaphthalene	below detection limit of 178	ng/dscm
naphthalene	2,010	ng/dscm
phenanthrene	6,180	ng/dscm
perylene	35	ng/dscm
pyrene	6,960	ng/dscm

Notes

Results of the 1993/1994 tests are found in Appendix XXIX of Westates' Part B permit application dated November 1995. The report is entitled Source Test Report, is prepared by Entropy, Inc., and is dated 6 June 1994. The subtitles give the following additional information: Volume 1, Revision 0; Source location: wet scrubber outlet stack; Test Dates: November 18-20, 1993 and January 28, 1994. Results listed in Table 2 above are taken from Tables 5-3 and 5-5 of the Source Test Report.

EPA had no emission standards in 1994 for polycyclic aromatic hydrocarbon emissions from carbon regeneration furnaces.

Notes on the Results of 1993/1994 Emissions Tests Conducted by Westates

Results of the 1993/1994 tests are found in Appendix XXIX of Westates' Part B permit application dated November 1995. The report is entitled Source Test Report, is prepared by Entropy, Inc., and is dated 6 June 1994. The subtitles give the following additional information: Volume 1, Revision 0; Source location: wet scrubber outlet stack; Test Dates: November 18-20, 1993 and January 28, 1994. Results listed in Table 1 on the front of this sheet are taken from Tables 5-1, 6-1, and 7-1 of the Source Test Report.

The "EPA Standard in 1994" listed in Table 1 on the front of this sheet are based on the following sources:

dioxins and furans	EPA's Draft Combustion Strategy
hydrogen chloride	EPA's incinerator rule (40 CFR 264 Subpart O)
carbon monoxide	EPA's boiler and industrial furnace rule (40 CFR 266 Subpart H)
particulates	EPA's incinerator rule (40 CFR 264 Subpart O) – 0.08 grains/dscf EPA's Draft Combustion Strategy – 0.015 grains/dscf
metals	EPA's boiler and industrial furnace rule (40 CFR 266 Appendix I)
DRE	EPA's incinerator rule (40 CFR 264 Subpart O)

EPA had no emission standards in 1994 for nitrogen oxides, sulfur dioxide, nickel, or selenium emissions from carbon regeneration furnaces.

The carbon regeneration furnace in operation at Westates in 1994 (RF-1) did not fit EPA's regulatory definition of "incinerator" or "boiler or industrial furnace". However, EPA would have considered applying the standards noted above if we had made a hazardous waste permit decision at RF-1 in 1994.

"DRE" is destruction and removal efficiency. It is a measure of how much of an organic compound going into the carbon regeneration furnace is destroyed and removed. A DRE of 99.99% means that of every 10,000 grams of the organic compound entering the carbon regeneration furnace, 9,999 grams are destroyed and removed, and 1 gram leaves through the stack.

The metal standards taken from 40 CFR 266 Appendix I are for noncomplex terrain, rural, and stack height 35 m. Table I-B of 40 CFR 266 Appendix I gives non-carcinogenic metals: antimony, barium, lead, mercury, silver, thallium. Table I-D of 40 CFR 266 Appendix I gives carcinogenic metals: arsenic, cadmium, chromium, beryllium. Westates reported their results in g/s. These are converted to g/hr in Table 1 on the front of this sheet.

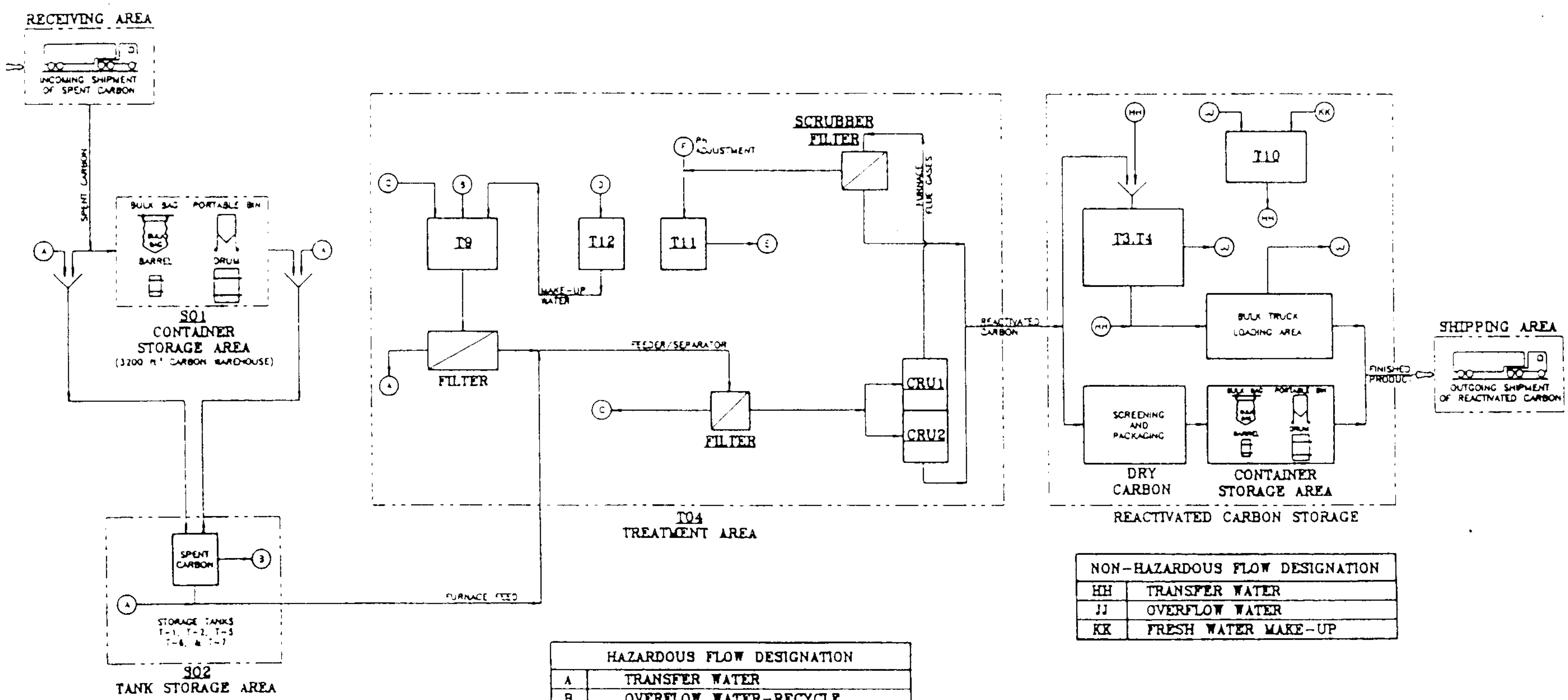
Table 1. Results of 1993/1994 Emissions Tests Conducted by Westates (RF-1)

contaminant	Westates' 1993/1994 Test maximum concentration	EPA Standard in 1994	units
dioxin/furans	1.45	30	ng/dscm
hydrogen chloride	0.00311	4	lbs/hr
carbon monoxide	4.7	100	ppm
nitrogen oxides	53.4		ppm
sulfur dioxide	0.693		ppm
particulates	0.0725	0.08 or 0.015	grains/dscf
antimony	0.0029	720	g/hr
arsenic	0.0289	5	g/hr
barium	0.0016	120,000	g/hr
beryllium	0.0002	10	g/hr
cadmium	0.0019	13	g/hr
chromium	0.0081	2	g/hr
lead	0.0896	210	g/hr
mercury	0.0024	720	g/hr
nickel	below detection limit of 0.0026		g/hr
selenium	0.0016		g/hr
silver	0.0005	7,200	g/hr
thallium	below detection limit of 0.0003	720	g/hr

contaminant	Westates' 1993/1994 Test minimum DRE	EPA Standard in 1994	units
carbon tetrachloride	99.9995	99.99	%
chlorobenzene	99.9998	99.99	%

See reverse side for notes.

Appendix F: Stack Test Air Emissions Data for RF-1 and RF-2



HAZARDOUS FLOW DESIGNATION	
A	TRANSFER WATER
B	OVERFLOW WATER-RECYCLE
C	FRESH WATER MAKE-UP
D	RAIN WATER COLLECTION FROM HAZARDOUS PROCESS AREA
E	TO INDUSTRIAL SEWER
F	Ph ADJUSTMENT

NON-HAZARDOUS FLOW DESIGNATION	
HH	TRANSFER WATER
JJ	OVERFLOW WATER
KK	FRESH WATER MAKE-UP

WESTATES CARBON
LOS ANGELES, CA 90040

WESTATES CARBON ARIZONA INC.

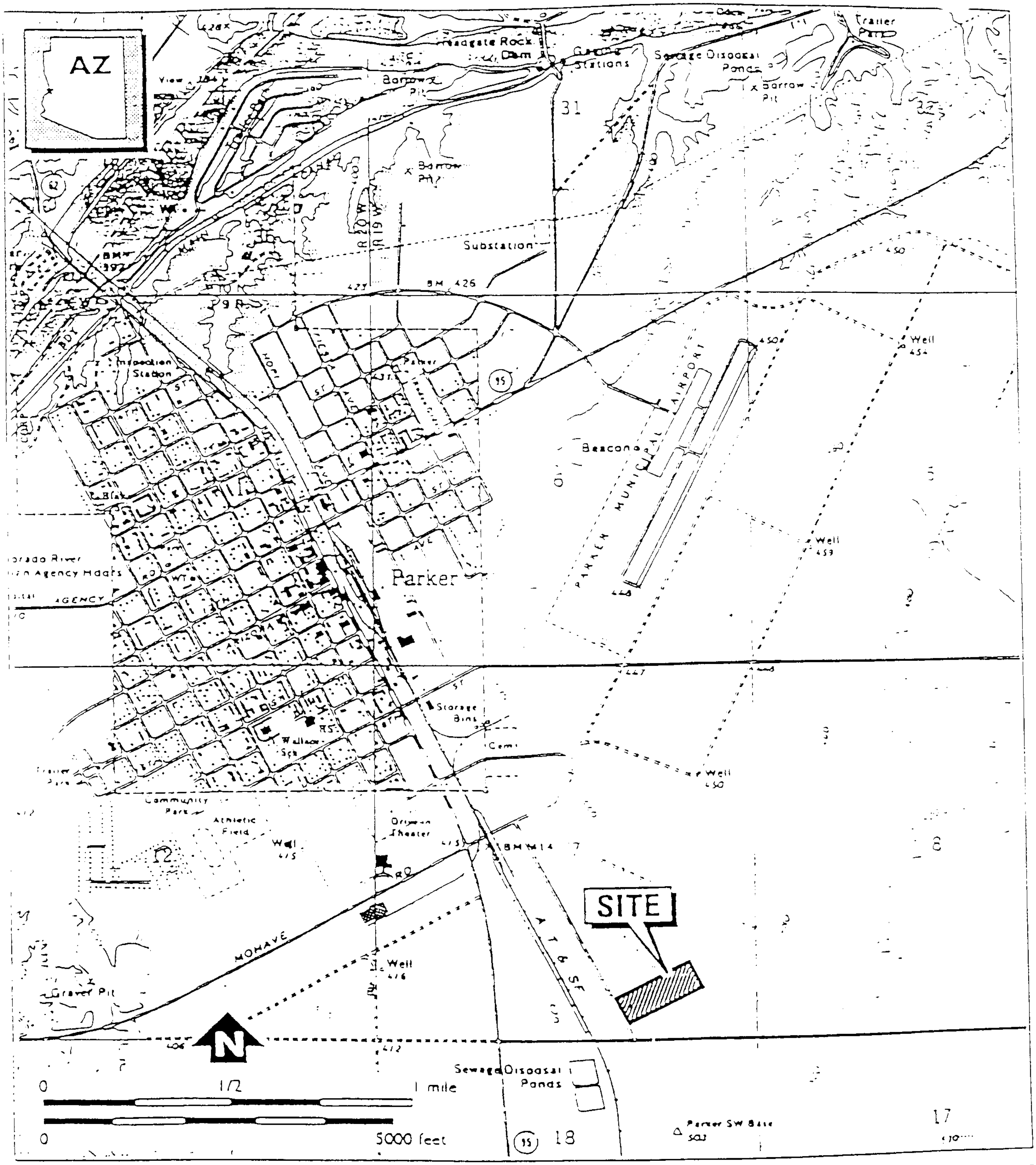
PARKER FACILITY

SCHEMATIC BLOCK
PROCESS FLOW DIAGRAM

CA D-100606 REV 0

PROJECT No 11118

Base map source: USGS 1:24000 Parker, Arizona – Calif. quad



ecology and environment, inc.

SITE LOCATION

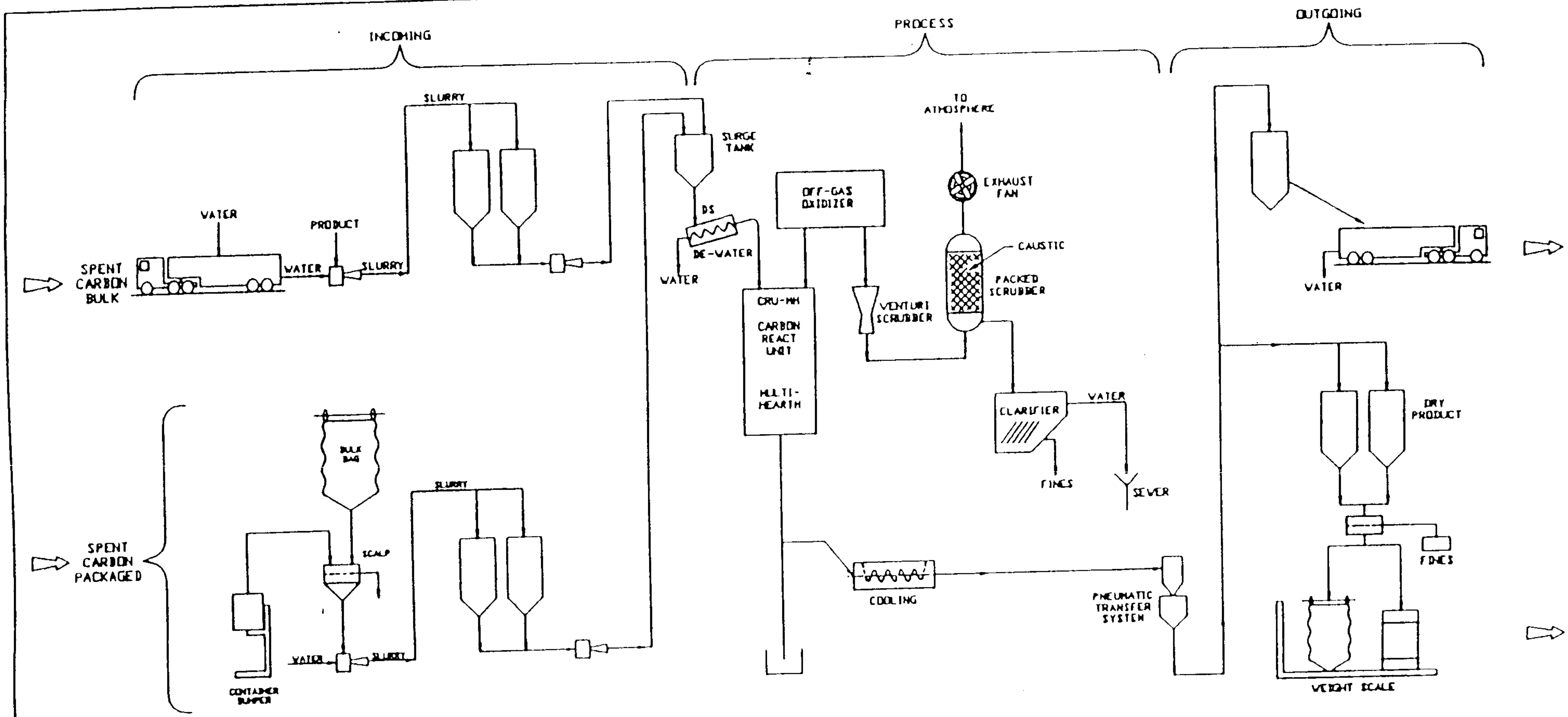
WESTATES CARBON – ARIZONA, INC.

2523 Mutahar Street

Parker, Arizona

Appendix D: Preliminary Facility Map of SWMUs

Appendix E: Process Flow Diagram



1	6/3/98				
REV	DATE	REVISION DESCRIPTION	APT.	CK	CHK'R

CUSTOMER: WESTATES CARBON ARIZONA INC.

LOCATION: PARKER FACILITY

SCALE: NONE

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DO NOT SCALE DRAWING

DRAWN: H. WEB 6/3/98
CHK'D:
ENG'R:

WESTATES CARBON
LOS ANGELES, CA. 90040

TITLE: RE-ACTIVATED CARBON PROCESS FLOW DIAGRAM

CODE: | DWG NO: D-100606 | REV. 1

PROJECT NO: 11118 | SHEET 1 OF 1